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INSPECTION / TESTING

1. CONTINUOUS SPECIAL INSPECTION IS REQUIRED PER CBC 2013 CHAPTER 17.

2. STEEL TESTING SHALL BE PROVIDED AS REQUIRED BY THE CBC INCLUDING BUT NOT LIMITED TO:

2.1 ALL STEEL SHALL BE IDENTIFIED AS REQUIRED BY THE CBC. MANUFACTURER'S MILL ANALYSES AND TEST REPORTS SHALL BE PROVIDED FOR THE STEEL. REFER TO PROJECT SPECIFICATIONS SECTION 05120 FOR SOURCE QUALITY CONTROL REQUIREMENTS.

2.2 ULTRASONIC TESTING IS REQUIRED FOR ALL (100%) PARTIAL AND COMPLETE PENETRATION WELDS. TESTING SHALL BE PERFORMED 24 HOURS OR MORE AFTER COMPLETION OF WELDING.

2.3 BASE METAL THICKER THAN 1-1/2", SUBJECTED TO THROUGH THICKNESS WELD SHRINKAGE, SHALL BE ULTRASONICALLY TESTED DIRECTLY BEHIND SUCH WELDS 24 HOURS OR MORE AFTER COMPLETION OF WELDING.

2.4 TEST BY CALIBRATED TORQUE WRENCH A MINIMUM OF ONE (1) HIGH STRENGTH BOLT AT EACH SHEAR CONNECTION, A MINIMUM OF TWO (2) BOLTS PER CONNECTION FOR CONNECTION WITH 8 BOLTS OR MORE.

2.5 ALL HEAVY SECTION COLUMN FLANGES LOCATED A THE WELDED CONNECTIONS SHALL BE ULTRASONICALLY EXAMINED, PRIOR TO WELDING, FOR THE EVIDENCE OF LAMINATIONS, INCLUSIONS OR OTHER DISCONTINUITIES. TESTING SHALL BE IN ACCORDANCE ASTM A898 (STRAIGHT BEAM ULTRASONIC EXAMINATION OF ROLLED STEEL STRUCTURAL SHAPES). THE AREA TO BE TESTED IS A ZONE 6" ABOVE AND BELOW EACH BEAM CONNECTION. ASTM 898 LEVEL 1 CRITERIA IS APPLICABLE.

2.6 HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL BE SAMPLED AND TESTED BY AN APPROVED INDEPENDENT TESTING LABORATORY FOR CONFORMANCE WITH THE APPROPRIATE ASTM STANDARD.

2.7 END WELDED STUDS SHALL BE SAMPLED, TESTED AND INSPECTED PER THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE – STEEL, 1998 EDITION, PUBLISHED BY THE AMERICAN WELDING SOCIETY.

2.8 RANDOM TESTING OF SLIP CRITICAL BOLTS: TORQUE TEST BY CALIBRATED TORQUE WRENCH AT LEAST 10% OF BOLTS AT RANDOM SLIP CRITICAL BOLTED CONNECTIONS TO BE IDENTIFIED BY SEOR.

3. CONCRETE TESTING SHALL BE PROVIDED AS REQUIRED BY CBC SECTION 1905.

4. APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OR FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE STRUCTURAL ENGINEER FOR INTERPRETATION OR CLARIFICATION.

MECHANICAL ANCHORS

1. EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HILTI KB-T8 (ICC ESR-1917). INSTALL PER ESR REPORT AND MANUFACTURER'S RECOMMENDATIONS.

2. PROVIDE GALVANIZED CARBON STEEL OR STAINLESS STEEL ANCHORS FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER.

3. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETER OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.

4. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

5. MINIMUM EMBEDMENT OF ANCHORS, UNLESS OTHERWISE NOTED:

ANCHOR DIAMETER	WEDGE EMBED
3/8"	2-5/8"
1/2"	2-5/8"
1/2"	4"
5/8"	3-3/4"
5/8"	4-3/4"
3/4"	4-1/2"
3/4"	5-3/4"

6. ANCHORS WILL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY.

7. TESTS & INSPECTION FOR MECHANICAL ANCHORS:

A. THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY TRANSMI A MEASURED TENSION LOAD TO THE ANCHOR. ACCEPTABLE METHODS INCLUDE:

i. HYDRAULIC JACK, EITHER UNCONFINED OR CONFINED TESTING.

ii. CALIBRATED SPRING LOADED DEVICES.

iii. CALIBRATED TORQUE WRENCH FOR TORQUE-CONTROLLED EXPANSION ANCHORS. INTERNALLY THREADED SHELL-TYPE ANCHORS AND DISPLACEMENT-CONTROLLED ANCHORS (E.G., DROP-IN ANCHORS), SCREW ANCHORS, AND ADHESIVE ANCHORS SHALL NOT BE TESTED USING A TORQUE WRENCH. SCREW ANCHORS MAY BE LOOSENED A MAXIMUM OF ONE FULL TURN TO FACILITATE THE POSITIONING OF A TENSION TEST COLLAR. FOLLOWING THE TENSION TEST, THE ANCHOR SHALL BE RE-TORQUED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REQUIRED TEST LOADS SHALL BE DETERMINED BY ONE OF THE FOLLOWING METHODS:

a. ONE AND ONE-HALF (1-1/2) TIMES THE CALCULATED DESIGN STRENGTH FOR STATIC TENSION LOAD OR TWO TIMES DESIGN STRENGTH FOR SEISMIC TENSION LOADS AS DETERMINED IN ACCORDANCE WITH APPENDIX D OF ACI318 (NOT APPLICABLE TO SCREW ANCHORS) USING COEFFICIENT OF BASIC CONCRETE BREAKOUT STRENGTH IN TENSION (Kc=17)

b. TWICE THE MAXIMUM ALLOWABLE TENSION LOAD OR ONE AND A QUARTER (1-1/4) TIMES THE MAXIMUM DESIGN STRENGTH OF ANCHORS AS PROVIDED IN ICC-ESR.

c. THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE OR RECOMMENDED TORQUE IN ICC-ESR (NOT APPLICABLE TO DISPLACEMENT-CONTROLLED ANCHORS AND SCREW ANCHORS).

B. ACCEPTANCE CRITERIA:

i. HYDRAULIC RAM METHOD: ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST, E.G., AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.

ii. TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE SPECIFIED TORQUE WITHIN 1/2 TURN OF THE NUT.

TEST VALUES: SIMPSON STRONG-BOLT 2 ESR-3037 (HARD ROCK OR LIGHT-WEIGHT CONCRETE)		
ANCHOR DIA (IN)	EMBED (IN)	TORQUE LOAD (FT-LBS)
3/8	2-5/8	25
1/2	2-5/8	40
1/2	4	40
5/8	3-3/4	60
5/8	4-3/4	60
3/4	4-1/2	110
3/4	5-3/4	110

STRUCTURAL OBSERVATION

PERIODIC STRUCTURAL OBSERVATION SHALL BE PROVIDED BY NABIH YOUSSEF & ASSOCIATES, STRUCTURAL ENGINEERS, PER CBC CHAPTER 17, FOR THE WORK INDICATED BELOW. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS BEFORE REQUIRED OBSERVATIONS. DELINQUENT NOTIFICATION MAY REQUIRE DEMOLITION OF COVERING MATERIAL TO FACILITATE OBSERVATION.

1. FIRST ERECTION OF STRUCTURAL STEEL

2. FIRST INSTALLATION OF ANCHOR BOLTS

3. FIRST INSTALLATION OF MECHANICAL AND ADHESIVE ANCHORS

STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS (360-05 & 341-05) WHERE THE STRUCTURAL STEEL IS EXPOSED, FABRICATION AND ERECTION SHALL ALSO BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.

2. STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION AS INDICATED BELOW (U.N.O.). PAINTING OF STEEL IS NOT REQUIRED STRUCTURALLY. VARIATION IN THE YIELD STRENGTH BELOW THE SPECIFIED MINIMUM VALUE IS NOT ALLOWED:

ALL W SHAPES (U.N.O.)

A992, (A193, GRADE 65 WHERE NOTED)

A572, GRADE 50 (A36 WHERE NOTED)

PLATES

A572, GRADE 50 (GRADE 42 IF > 4" THICK)

STRUCTURAL TUBING

A500, GRADE B (Fy=46ksi)

PIPE COLUMNS

A53, GRADE B (Fy=42ksi)

ANCHOR BOLTS

F1554 GRADE 36

STAIR CHANNELS, PLATES, SHAPES, BARS

A36 / A36M U.N.O.

3. MEMBERS IN THE SEISMIC FORCE RESISTING SYSTEM INCLUDE BRACED FRAME COLUMNS, BRACED FRAME BEAMS, BRACES, DRAG BEAMS, MOMENT FRAME BEAMS, AND MOMENT FRAME COLUMNS.

4. HEAVY STRUCTURAL SECTIONS INCLUDE, ASTM A6 GROUP 3 SHAPES WITH FLANGES 1 1/2" THICK OR THICKER, ASTM A6 GROUP 4 AND 5 SHAPES, AND PLATES THAT ARE 1 1/2" THICK OR THICKER IN BUILT-UP CROSS-SECTIONS.

5. HEAVY STRUCTURAL SECTIONS AND ALL BRACED FRAME COLUMNS SHALL BE SUPPLIED WITH TESTING IN ACCORDANCE WITH ASTM A6 SUPPLEMENTARY REQUIREMENT SS AND SHALL HAVE A MINIMUM CHARNPY V-NOTCH (CVN) TOUGHNESS OF 20 FT/LBS AT 70 DEGREES FAHRENHEIT

6. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT (DESIGN) EDITION OF AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. HIGH STRENGTH BOLTS SHALL BE BEARING TYPE WITH THREADS EXCLUDED FROM THE FROM THE SHEAR PLANES (I.E. A325-N) UNLESS NOTED OTHERWISE. SLIP CRITICAL BOLTS SHALL BE USED FOR MOMENT AND DRAG CONNECTIONS.

7. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS UNLESS SHOWN OTHERWISE. MINIMUM SIZE OF BOLTS FOR STRUCTURAL STEEL CONNECTIONS SHALL BE 7/8" DIA. EXCEPT WHEN OTHERWISE SHOWN OR NOTED.

8. WHEN FABRICATING BEAMS PLACE NATURAL CAMBER UP.

9. ALL FLANGE STIFFENER PLATES SHALL BE MADE FROM BI-DIRECTIONALLY ROLLED STEEL PLATE.

10. CONDITION OF STEEL ON DELIVERY SHALL BE PER THE CURRENT (DESIGN) EDITION OF AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS.

11. SEE ARCHITECTURAL PLANS FOR DETAILS OF FIREPROOFING.

12. ALL HOLES SHALL BE STANDARD DIAMETER U.N.O.

13. INSTALL BOLTS/EXPANSION ANCHORS IN CONCRETE AND FIELD VERIFY AS-BUILT LOCATIONS PRIOR TO FABRICATION OF BOLT HOLES IN NEW STEEL MEMBERS. AT CONTRACTOR OPTION, OVERSIZED HOLES AND WELDED PLATE WASHERS CAN BE USED IN LIEU OF STANDARD DIAMETER HOLES.

14. PROVIDE FILLS AT SPLICES OF PARTS HAVING MORE THAN 1/8" DIFFERENCE IN THICKNESS.

15. PROVIDE BEVELED WASHERS ON ALL CONNECTIONS WHERE SLOPE SURFACE EXCEEDS 1:20.

16. SHEAR CONNECTORS SHALL BE NELSON GRANULAR FLUX-FILLED HEADED ANCHOR STUDS OR AN APPROVED EQUAL, SHALL BE MADE FROM COLD FINISHED LOW CARBON STEEL, AND SHALL CONFORM TO A-108, GRADES 1015 – 1020 WITH A MINIMUM TENSILE STRENGTH OF 60,000 PSI. STUD WELDING INSPECTION AND TESTING SHALL CONFORM TO AWS D1.1.

17. DEFORMED BAR ANCHOR STUDS SHALL BE NELSON D2L, ICBO ESR-5217, GRANULAR FLUX-FILLED REBAR STUDS OR APPROVED EQUAL, AND SHALL BE MADE OF LOW CARBON COLD ROLLED STEEL WITH A MINIMUM TENSILE STRENGTH OF 80,000 PSI. STUD WELDING INSPECTION AND TESTING SHALL CONFORM TO AWS D1.1.

18. SPLICE MEMBERS ONLY WHERE INDICATED.

19. STRESSES AT ALL TIMES SHALL BE LESS THAN DESIGN AND ALLOWABLE STRESSES. THE FULL DESIGN AND LOAD CARRYING CAPACITY OF THE STEELWORK SHALL NOT BE IMPAIRED DUE TO FABRICATION, SHIPMENT, OR ERECTION PROCEDURES, THROUGHOUT THE COMPLETE PROCESS. THE STABILITY OF ALL INDIVIDUAL MEMBERS AND ASSEMBLIES SHALL BE MAINTAINED.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE. CONTRACTOR TO SUBMIT WELDING SEQUENCE PROCEDURE FOR APPROVAL BY SEOR.

21. ALL ADDITIONAL STEEL REQUIRED FOR ERECTION PURPOSES SHALL BE PROVIDED AT NO ADDITIONAL COST AND SHALL BE REMOVED UNLESS APPROVED BY THE OWNER IN WRITING.

22. ALL BASE PLATE TO BE FULLY GROUTED AND REACHES 28 DAYS STRENGTH PRIOR TO FIRST ELEVATED DECK POUR

23. ALL ANCHOR BOLTS IN BASE PLATES WITH OVERSIZED HOLES SHALL HAVE 3-1/2 IN. SQ. WASHER PLATES UNO. THICKNESS OF WASHER PLATES SHALL BE 0.375 TIMES THE DIAMETER OF THE ANCHOR BOLTS. PLATE WASHERS SHALL BE WELDED TO BASE PLATE WITH 5/16" FILLET WELD ON ALL SIDES.

24. ANCHOR BOLTS TO HAVE DOUBLE NUT ON EMBEDDED SIDE U.N.O.

25. "EPOXY ANCHORS/BOLTS" SHALL BE ASTM A193 THREADED ROD AND INSTALLED USING HILTI HIT-HY150 (ICBO ESR-3013) WITH DIAMETER AND EMBEDMENT LENGTH AS NOTED ON THE DRAWINGS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

2. REINFORCEMENT DOWELS NOTED "DRILL AND EPOXY" SHALL BE INSTALLED USING HILTI HIT-HY150 (ICBO ESR-3013) WITH EMBEDMENT LENGTH AS NOTED ON THE DRAWINGS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

3. WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE EXERCISE CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.

4. TEST 100% OF EPOXY DOWELS PER THE FOLLOWING METHOD:

HYDRAULIC RAM METHOD: APPLY PROOF TEST LOAD WITHOUT REMOVING THE NUT INSTALLED, REPLACE THE NUT WITH A THREADED COUPLER TO THE SAME TORQUE MEASURED WITH A TORQUE WRENCH, AND THEN APPLY THE LOAD. ANCHOR IS ACCEPTABLE IF NO MOVEMENT IS OBSERVED AT THE TEST LOAD. MOVEMENT MAY BE DETERMINED WHEN THE WASHER UNDER THE NUT BECOMES LOOSE. EXCEPTION: WHEN ANCHORS ARE USED FOR NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50% OR ALTERNATE BOLTS IN A GROUP SHALL BE TESTED.

STRUCTURAL STEEL WELDING

1. ALL WELDING SHALL BE IN STRICT CONFORMANCE WITH THE 2004 EDITION OF AWS D1.1, THE 2005 D1.8 SEISMIC SUPPLEMENT, AND THE CALIFORNIA BUILDING CODE. ALL WELDING PROCEDURES SHALL BE APPROVED BY OSHPD.

2. ALL WELDING ELECTRODES (FILLER METAL) SHALL BE E70XX (70 KSI) OR E70TXXX (70 KSI) AS REQUIRED FOR INTENDED USE, U.N.O., AND SHALL BE LOW HYDROGEN TYPES.

3. ALL WELDS SHALL HAVE A FILLER METAL WITH A MINIMUM CHARNPY V-NOTCH TOUGHNESS OF 20 FT/LBS AT -20 DEGREES FAHRENHEIT AND 40 FT/LBS @ 70 DEGREES FAHRENHEIT CERTIFY CONFORMANCE TO CHARNPY V-NOTCH TOUGHNESS REQUIREMENTS WITH TESTS BY AN INDEPENDENT TESTING LABORATORY.

4. LENGTHS OF WELDS ARE EFFECTIVE LENGTHS AS SPECIFIED IN THE CALIFORNIA BUILDING CODE. WHERE LENGTH OF WELD IS NOT SHOWN IT SHALL BE FULL LENGTH OF JOINT. ALL BUTT WELDS SHALL BE FULL PENETRATION, UNLESS NOTED OTHERWISE.

5. ALL SHOP WELDS SHALL BE PERFORMED BY A LICENSED FABRICATOR.

6. ALL WELDERS SHALL BE QUALIFIED FOR THE WORK THEY WILL BE DOING & SHALL HAVE CERTIFICATIONS CURRENT.

7. FACES OF FILLET WELDS EXPOSED TO VIEW SHALL HAVE AS-WELDED SURFACES THAT REQUIRE NO FINISHING OR GRINDING EXCEPT WHERE CLEARANCES OR FIT OF OTHER ITEMS MAY SO NECESSITATE.

8. ALL PARTIAL AND FULL PENETRATION WELDS WHICH ARE EXPOSED TO VIEW SHALL BE IN ACCORDANCE WITH AISC COMMENTARY ON AESS.

9. CLEAN GROOVE PREPARATION THERMAL CUTS BY GRINDING.

10. WELDS SHALL BE TERMINATED AT THE END OF A JOINT IN A MANNER THAT WILL ENSURE SOUND WELDS. WHENEVER NECESSARY THIS SHALL BE DONE BY USE OF EXTENSION BARS AND WELD TABS, PER AWS D1.1-9 SECTION 5.31, ALIGNED IN SUCH A MANNER TO PROVIDE AN EXTENSION OF THE JOINT PREPARATION.

11. THE CONTRACTOR SHALL SUBMIT ALL WELDING PROCEDURE SPECIFICATIONS (WPS) TO BE USED ON THE PROJECT PER THE CURRENT (DESIGN) EDITION OF AWS D1.1. FOR ALL WPS THAT ARE NOT PREQUALIFIED PER AWS D1.1, THE SUPPORTING PROCEDURE QUALIFICATION RECORD (PQR) SHALL ALSO BE SUBMITTED WITH THE WPS. THE WPS SHALL INCLUDE ALL MANUFACTURER'S DATA SHEETS FOR ALL WELDING MATERIALS TO BE USED. THE DATA SHEETS SHALL DESCRIBE THE PRODUCTS, LIMITATIONS OF USE, RECOMMENDED WELDING PARAMETERS, AND STORAGE AND EXPOSURE REQUIREMENTS.

12. THE CONTRACTOR SHALL PROVIDE PLANS SHOWING THE SEQUENCE OF WELDING PLANNED TO MINIMIZE LOCKED IN STRESSES AND DISTORTION IN THE STEEL FRAMING.

13. LOW HYDROGEN SMAW ELECTRODES SHALL BE RECEIVED AND STORED IN THE ORIGINAL, UNDAMAGED MANUFACTURER PACKAGING, UNTIL READY FOR USE. WHEN WELDING IS TO BE SUSPENDED FOR MORE THAN 8 HOURS, ELECTRODES SHALL BE REMOVED FROM THE MACHINES AND STORED IN AN ELECTRODE WIRE OVEN MAINTAINED AT A TEMPERATURE BETWEEN 250 DEGREES AND 550 DEGREES OR AS RECOMMENDED BY THE MANUFACTURER. ELECTRODES NOT CONSUMED WITHIN 24 HOURS OF ACCUMULATED EXPOSURE OUTSIDE CLOSED OR HEATED STORAGE SHALL NOT BE USED. FLUX CORED ELECTRODES SHALL BE RECEIVED AND STORED PER AWS D1.1.

14. BACKING BAR FOR THE BOTTOM FLANGE OF BEAM TO COLUMN CONNECTIONS TO BE REMOVED. FOLLOWING REMOVAL OF BACKING, THE ROOT PASS SHALL BE BACKGROUDED TO SOUND WELD METAL AND BACKWELDED UNTIL FLUSH OR WITH SLIGHT REINFORCEMENT.

WHERE WELD TABS ARE USED, THEY SHALL BE REMOVED & THE SURFACE SHALL BE GROUND SMOOTH TO A SURFACE ROUGHNESS NOT TO EXCEED 500 MICROINCHES.

15. MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE PROVIDED FOR ALL WELDS, INCLUDING TACK WELDS, IN ACCORDANCE WITH AWS D1.1 AND D1.8, THE MAXIMUM PREHEAT AND MAXIMUM INTERPASS TEMPERATURE PERMITTED IS 550 DEGREES FAHRENHEIT, MEASURED AT A DISTANCE OF 1" FROM THE POINT OF ARC INITIATION.

METAL DECK

1. STEEL DECK, ICBO ER-2757 & ER-2078, SHALL HAVE MINIMUM PROPERTIES AND BE THE TYPE AS INDICATED ON DRAWINGS.

2. MINIMUM "S" AND "I" VALUES SHALL BE DETERMINED ACCORDING TO THE "LIGHT GAUGE STEEL INSTITUTE".

METAL DECK THICKNESS (IN)	GAGE	METAL DECK			REMARKS		
		WEIGHT (PSF)	PHOSPATIZED/PAINTED				
			I (IN ⁴)	+S (IN ³)	-S (IN ³)		
3"	16	3.5	3.3	1.509	1.509	0.96	W3
2"	18	2.7	2.5	0.555	0.555	0.511	W2
1 1/2"	18	2.9	2.8	0.302	0.302	0.335	HSB-36

3. ALL STEEL DECK SHALL BE CONTINUOUS OVER AT LEAST TWO SPANS EXCEPT WHERE UNAVOIDABLE DUE TO BUILDING CONFIGURATION.

4. ALL WELDING OF STEEL DECK SHALL BE PERFORMED BY CERTIFIED LIGHT GAUGE WELDERS.

5. PRIOR TO CONCRETE POUR, SMALL OPENINGS SHALL BE BLOCKED OUT AND FORMLOK LEFT INTACT. HOLES LESS THAN 6" IN DIAMETER AND CUTTING NO MORE THAN ONE WEB OF THE METAL DECK NEED NO REINFORCING. AFTER THE CONCRETE HAS CURED, THE BLOCKOUT CAN BE REMOVED AND THE FORMLOK IN THE AREA OF THE HOLE REMOVED. ALL HOLES GREATER THAN 6" DIAMETER OR CUTTING MORE THAN ONE WEB OF THE METAL DECK SHALL BE REINFORCED PER THE TYPICAL DETAILS.

GENERAL NOTES

SE001 GENERAL NOTES

SE101 FLOOR PLAN – LEVEL 3 – AREA D

SE102 INTERSTITIAL FLOOR PLAN – LEVEL 3 – AREA D

SE103 INTERSTITIAL FLOOR PLAN – LEVEL 3 – AREA D MEP OVERLAY

SE400 SECTIONS & DETAILS

SE500 EQUIPMENT ANCHORAGE SCHEDULES & DETAILS

GENERAL

1. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND THE FOLLOWING: 2013 CALIFORNIA BUILDING CODE.

2. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE (U.N.O.).

3. THE STRUCTURAL DRAWINGS ILLUSTRATE THE STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.

4. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS WHICH IMPACT THE WORK. FIELD VERIFY SIZES, ELEVATIONS, HOLE LOCATIONS, ETC. PRIOR TO FABRICATION.

5. DRAWING DIMENSIONS ARE TO FACE OF FINISH, JOINT CENTERLINE OR COLUMN GRID CENTERLINE UNLESS NOTED OTHERWISE. DO NOT SCALE THE DRAWINGS.

6. CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED. VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.

7. THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.

8. ANY DEVIATION, MODIFICATION & SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER, ARCHITECT, ENGINEER AND GOVERNING CODE AUTHORITY FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS.

9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORES, BRACES AND GUYS REQUIRED TO SUPPORT ALL LOADS TO WHICH THE BUILDING STRUCTURE AND COMPONENTS, SOILS, OTHER STRUCTURES AND UTILITIES MAY BE SUBJECTED DURING CONSTRUCTION. SHORING SYSTEMS SHALL BE DESIGNED AND STAMPED BY A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.

10. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE AND PROCEDURE OF CONSTRUCTION AS REQUIRED.

11. KEY AND DOWEL POUR JOINTS AS SHOWN ON THE PLANS. ANY DEVIATION FROM POUR JOINTS SHOWN ON THE PLANS MUST BE APPROVED BY THE ENGINEER.

12. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.

13. SITE VISITS PERFORMED BY ARCHITECT/ENGINEER DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY CONTRACTOR.

14. STRUCTURAL OBSERVATIONS PERFORMED BY ARCHITECT/ENGINEER DURING CONSTRUCTION ARE NOT THE CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR. OBSERVATIONS ALSO DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.

15. CONTRACTORS SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO ARCHITECT AND ENGINEER.

16. ARCHITECT'S/ENGINEER'S REVIEW OF THE SHOP DRAWINGS SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEViate FROM CONTRACT DOCUMENTS.

17. SHOP DRAWINGS WILL NOT BE PROCESSED DUE TO INCOMPLETENESS, LACK OF CO-ORDINATION WITH RELEVANT PORTION OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS IF REQUIRED AND WHERE DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM ARCHITECT/ENGINEER.

18. ALLOW TEN WORKING DAYS FOR PROCESSING SHOP DRAWINGS AFTER RECEIPT BY ENGINEER.

19. CONCRETE CORING SHALL NOT BE PERFORMED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.

20. ALL EXISTING CONDITIONS MUST BE VERIFIED AND CONFIRMED IN FIELD BY CONTRACTOR.

SHEET LIST

1. BUILDING SHALL COMPLY WITH THE 2013 EDITION OF THE CALIFORNIA BUILDING CODE

2. LATERAL LOADS

SEISMIC: AS PER THE 2013 CALIFORNIA BUILDING CODE

SITE CLASS = D

Fa = 1.0

Fv = 1.5

S_DS = 1.596

S_D1 = 1.096

IMPORTANCE FACTOR, I = 1.5

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

Office of Construction and Facilities Management

Department of Veterans Affairs

No.

Description

Date

1

SCHEMATIC DESIGN (SD)

10/20/2015

2

DESIGN DEVELOPMENT (DD)

01/19/2016

3

CONSTRUCTION DOCUMENTS (CD)

03/30/2016

4

ADDENDUM 1

08/17/2016

8/26/2016 10:27:57 AM\201414252 - VA Loma Linda OR Construction\SS-14252-R16.rvt

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VA FORM 08-6231

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CONSULTANTS:

NABIH YOUSSEF

STRUCTURAL ENGINEERS

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LOS ANGELES • IRVINE • SAN FRANCISCO

Seals and Signatures

ARCHITECTS/ENGINEERS:

LEO A DAILY

550 South Hope Street, 27 Floor

Los Angeles, California 90071, USA

213-629-0100 F213-629-0070

PLANNING ARCHITECTURE ENGINEERING INTERIORS

EST. 1915

Drawing Title

GENERAL NOTES

Approved: Project Director

Project Title

CONSTRUCT OPERATING ROOM #8

Location

11201 BENTON STREET, LOMA LINDA, CA 92357

Date

03/30/2016

Checked

AP

Drawn

MR

Project Number

605-14-640

Building Number

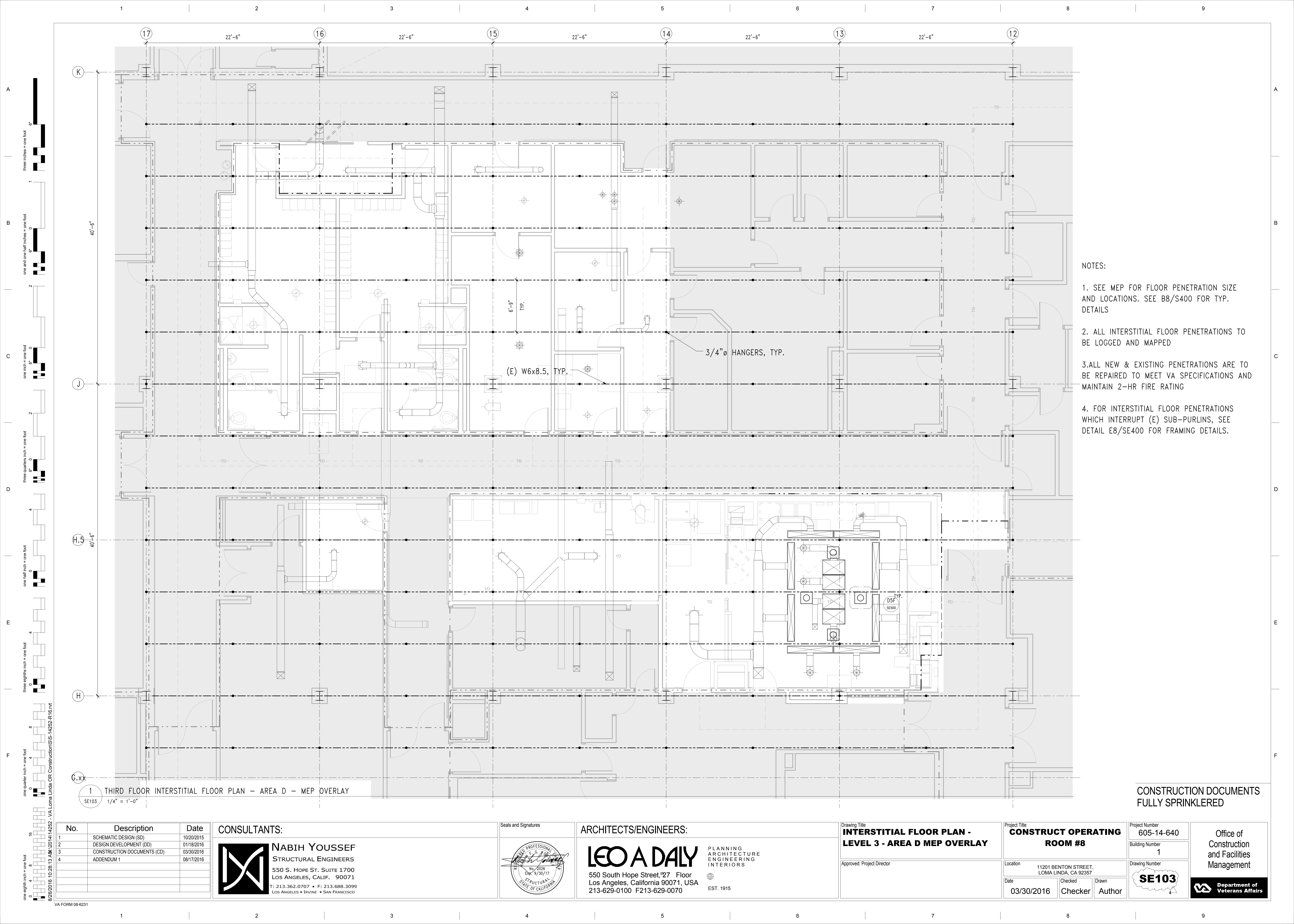
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Drawing Number

SE001

Office of Construction and Facilities Management

Department of Veterans Affairs

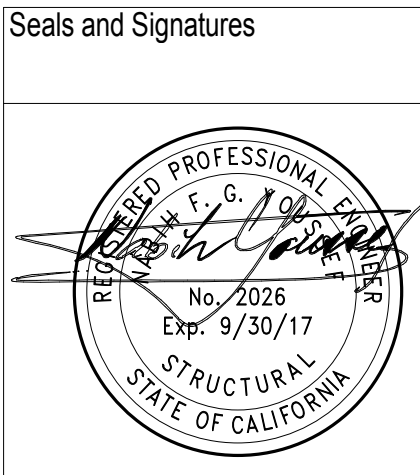


- NOTES:
1. SEE MEP FOR FLOOR PENETRATION SIZE AND LOCATIONS. SEE B8/S400 FOR TYP. DETAILS
 2. ALL INTERSTITIAL FLOOR PENETRATIONS TO BE LOGGED AND MAPPED
 3. ALL NEW & EXISTING PENETRATIONS ARE TO BE REPAIRED TO MEET VA SPECIFICATIONS AND MAINTAIN 2-HR FIRE RATING
 4. FOR INTERSTITIAL FLOOR PENETRATIONS WHICH INTERRUPT (E) SUB-PURLINS, SEE DETAIL E8/SE400 FOR FRAMING DETAILS.

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/19/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	08/17/2016

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EST. 1915
PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS

Drawing Title
**INTERSTITIAL FLOOR PLAN -
LEVEL 3 - AREA D MEP OVERLAY**

Approved: Project Director

Project Title
**CONSTRUCT OPERATING
ROOM #8**

Location
11201 BENTON STREET,
LOMA LINDA, CA 92357

Date
03/30/2016

Checked
Checker

Drawn
Author

Project Number
605-14-640

Building Number
1

Drawing Number
SE103

Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

A

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

8/26/2016 10:28:19 AM:201414252 - VA Loma Linda OR Construction/SS-14252-R16.vrt

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/19/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
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Seals and Signatures



ARCHITECTS/ENGINEERS:



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EST. 1915

Drawing Title

SECTIONS & DETAILS

Approved: Project Director

Project Title

**CONSTRUCT OPERATING
ROOM #8**

Location

11201 BENTON STREET,
LOMA LINDA, CA 92357

Date
03/30/2016

Checked
AP

Drawn
MR

Project Number

605-14-640

Building Number

1

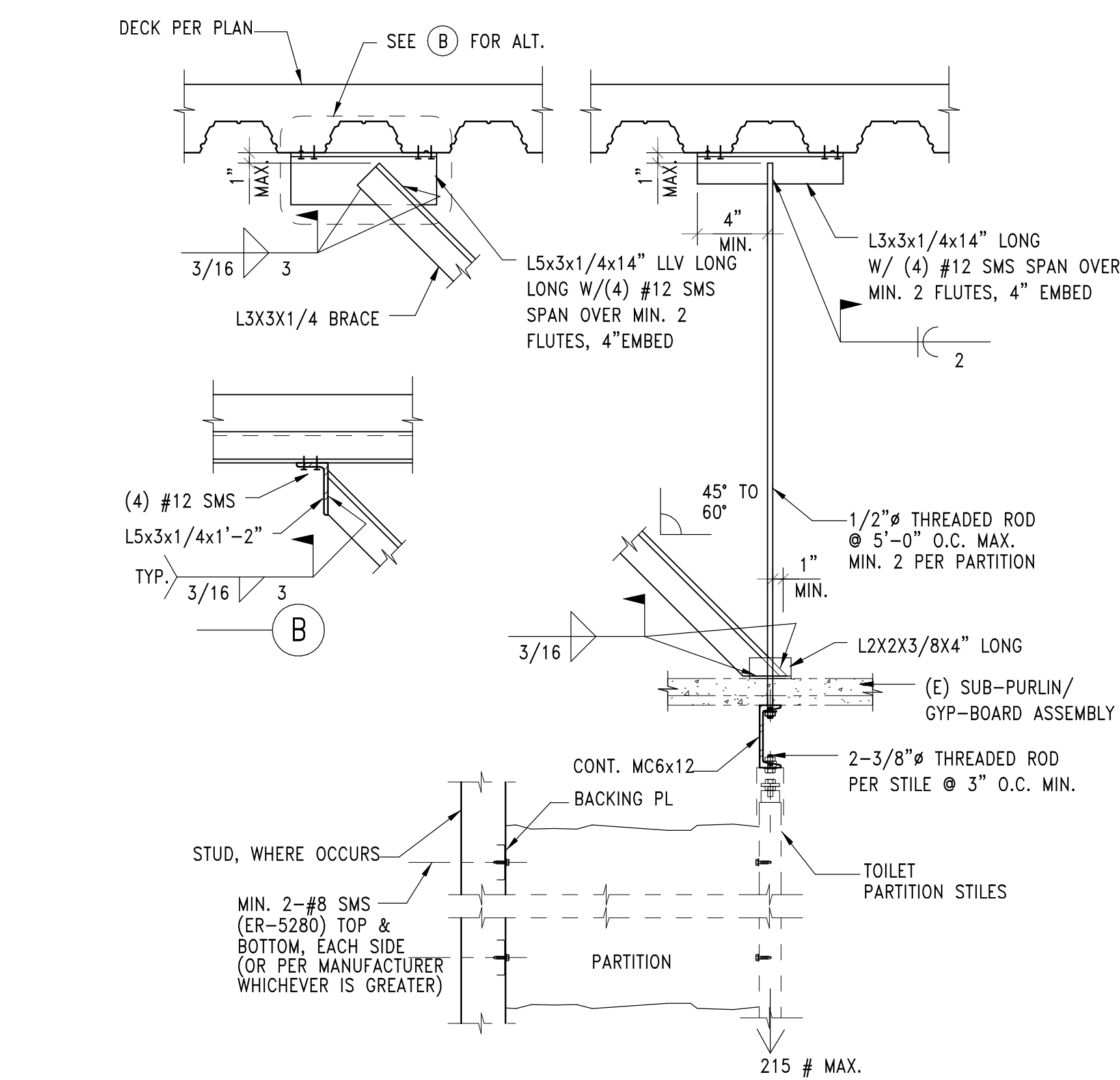
Drawing Number

SE400

Office of
Construction and Facilities
Management

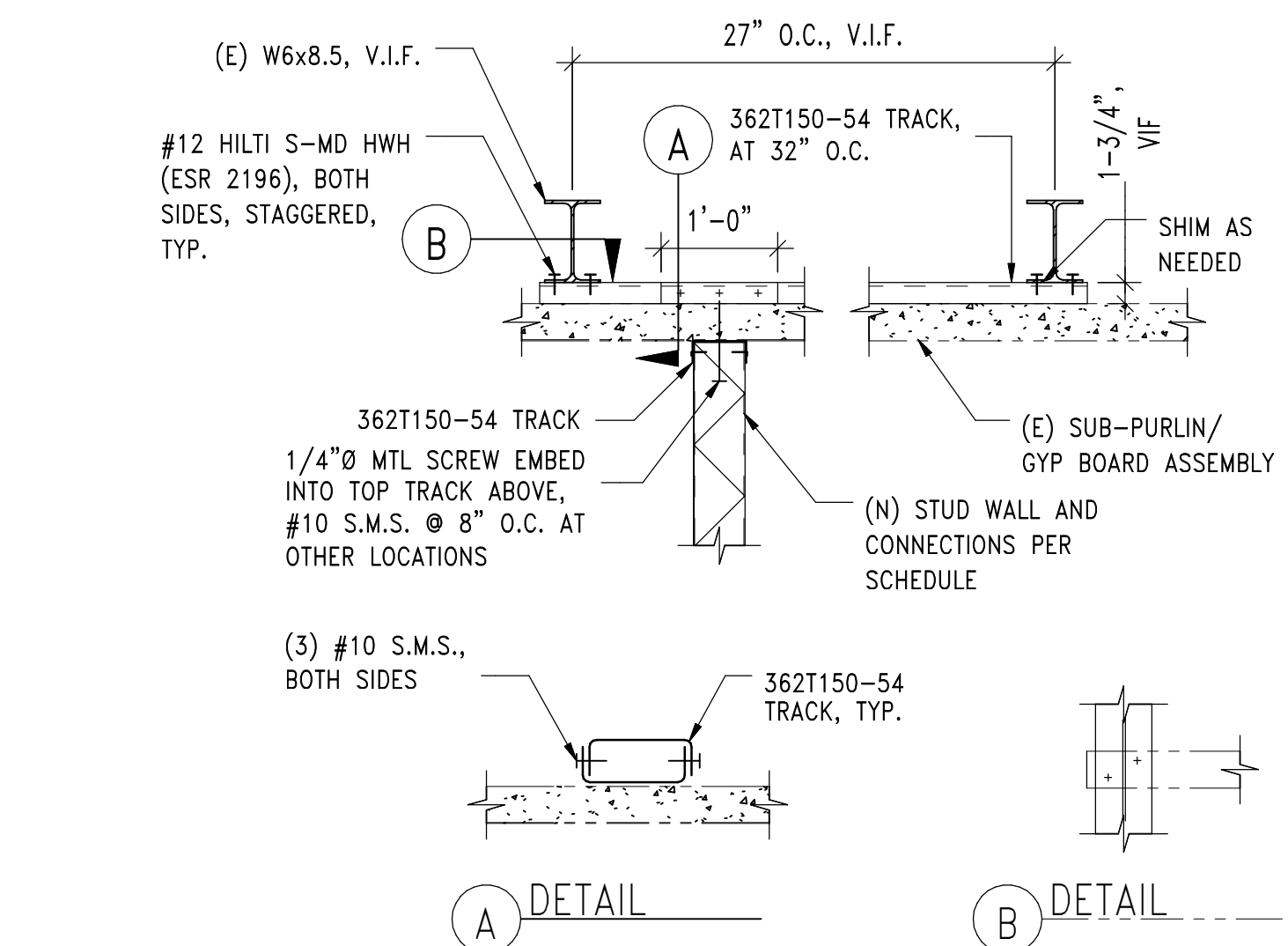


CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED



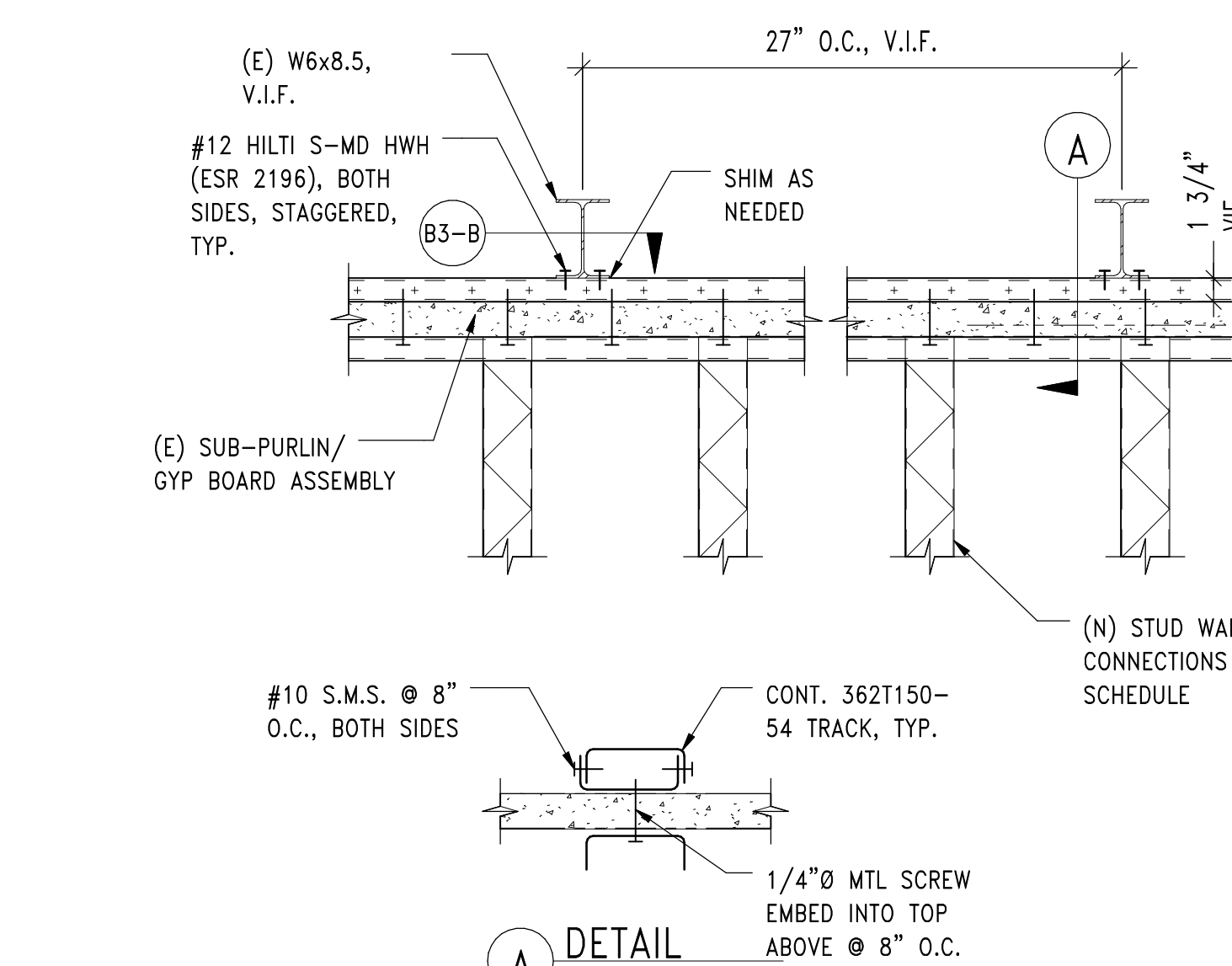
C2 TOILET PARTITION SUPPORT

SE400 1" = 1'-0"



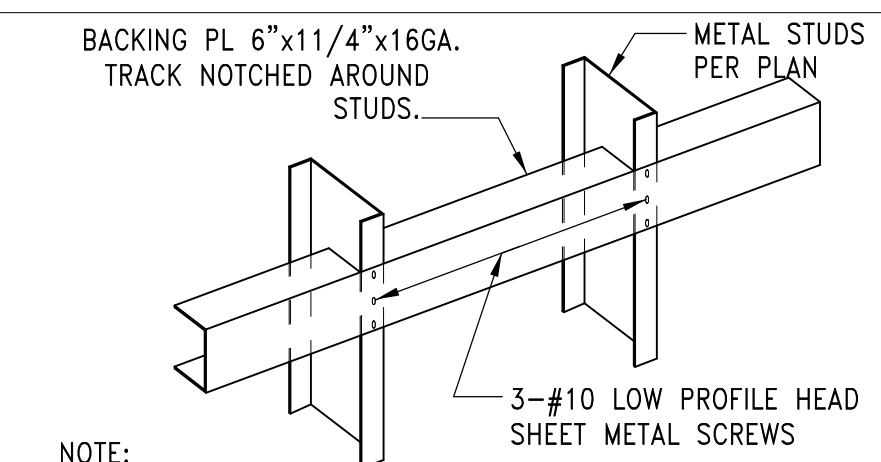
**D2 ALT. PARTITION WALL TOP CONNECTION
PARALLEL TO (E) SUB-PURLINS**

SE400 1" = 1'-0"



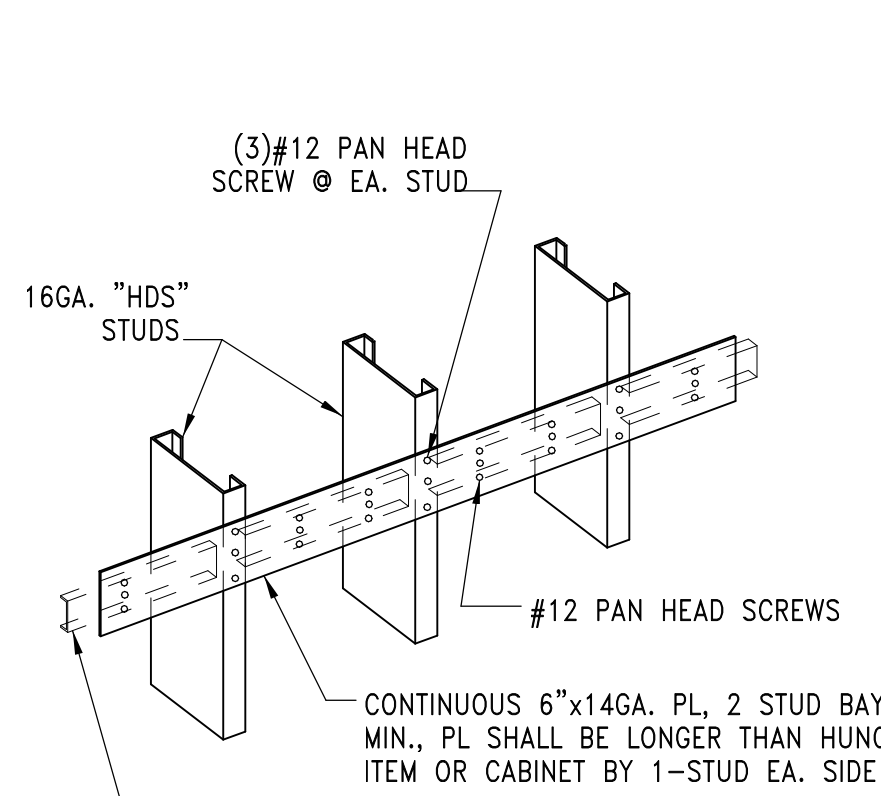
**F2 ALT. PARTITION WALL TOP CONNECTION
PERPENDICULAR TO (E) SUB-PURLINS**

SE400 1" = 1'-0"



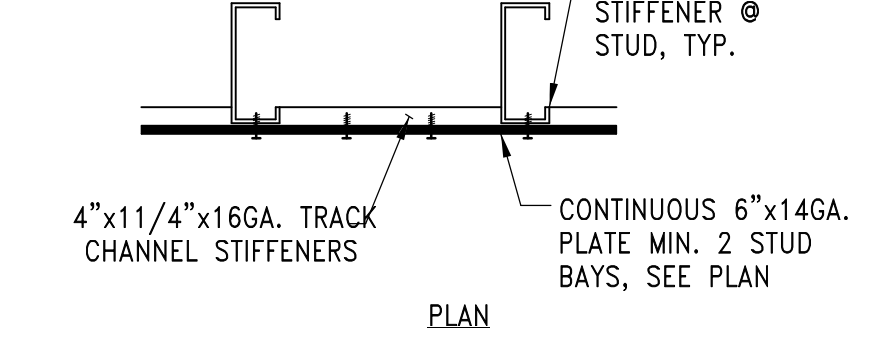
A5 TYP. MTL STUD MOUNTING PLATE

SE400 1" = 1'-0"



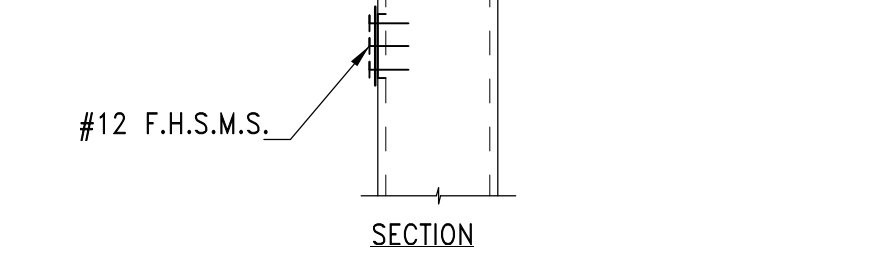
A6 TYP. MTL STUD TO (E) DECK CONN.

SE400 1" = 1'-0"



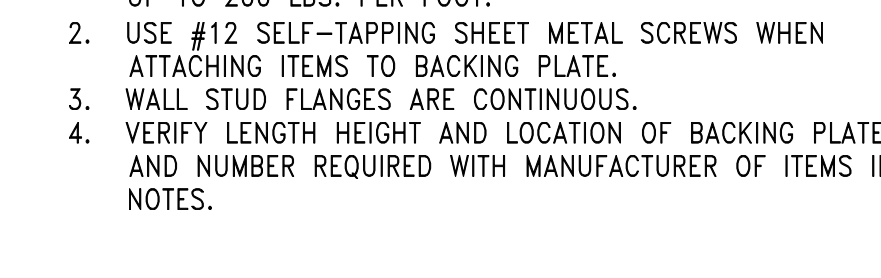
A7 SUSP. CEILING WIRING CONN.

SE400 1" = 1'-0"



B8 TYPICAL PENETRATION DETAIL

SE400 1" = 1'-0"



**C6 TYP. KICKER CONN. @
SUSPENDED STUD WALL**

SE400 1" = 1'-0"



D5 TP. BACKING CONNECTION

SE400 1" = 1'-0"



D6 TYP. CEILING BRACING WIRE DTL

SE400 1" = 1'-0"



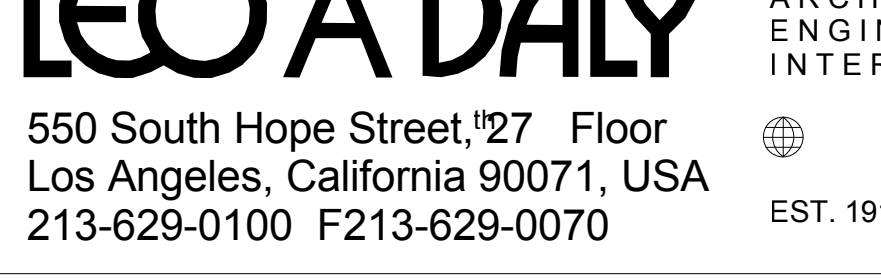
D7 SUSPENDED STUD WALL

SE400 1" = 1'-0"



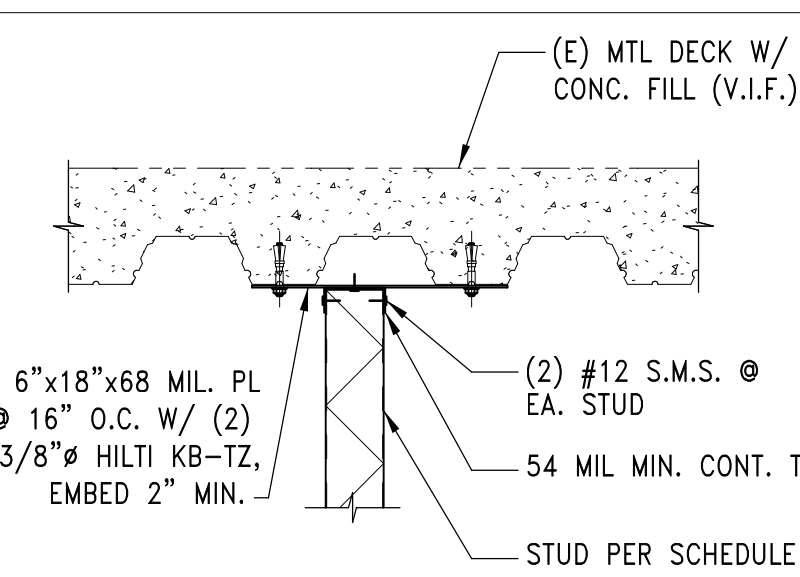
E7 COMP. STRUT CONN.

SE400 1" = 1'-0"



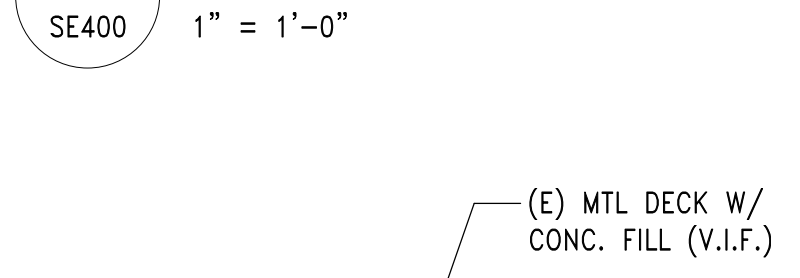
E8 INTERRUPTED INTERSTITIAL FLOOR OPENING DETAIL

SE400 N.T.S.



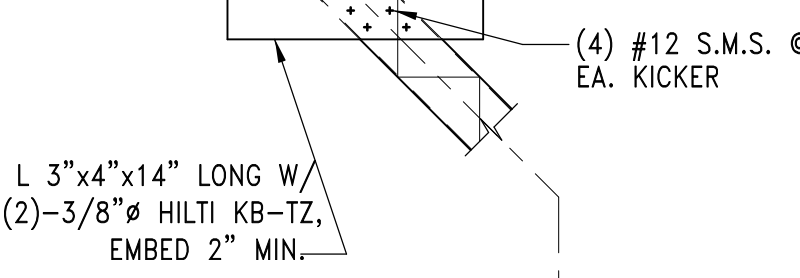
A6 TYP. MTL STUD TO (E) DECK CONN.

SE400 1" = 1'-0"



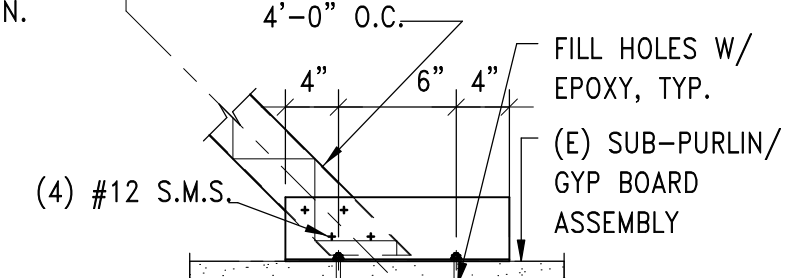
A7 SUSP. CEILING WIRING CONN.

SE400 1" = 1'-0"



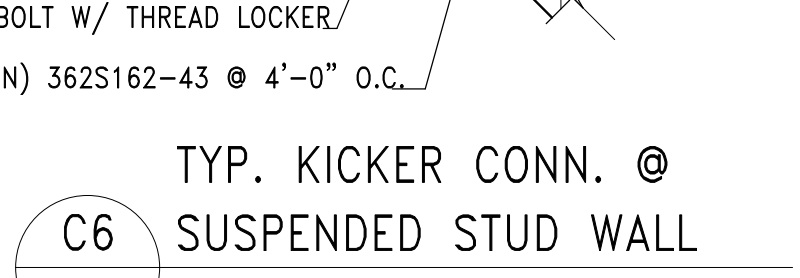
B8 TYPICAL PENETRATION DETAIL

SE400 1" = 1'-0"



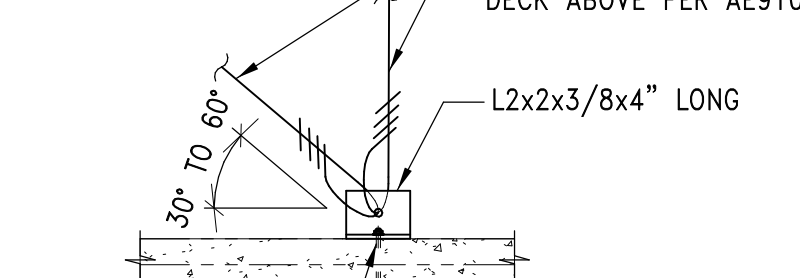
**C6 TYP. KICKER CONN. @
SUSPENDED STUD WALL**

SE400 1" = 1'-0"



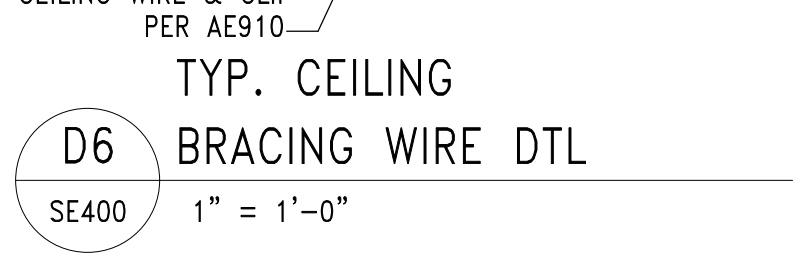
D5 TP. BACKING CONNECTION

SE400 1" = 1'-0"



D6 TYP. CEILING BRACING WIRE DTL

SE400 1" = 1'-0"



D7 SUSPENDED STUD WALL

SE400 1" = 1'-0"



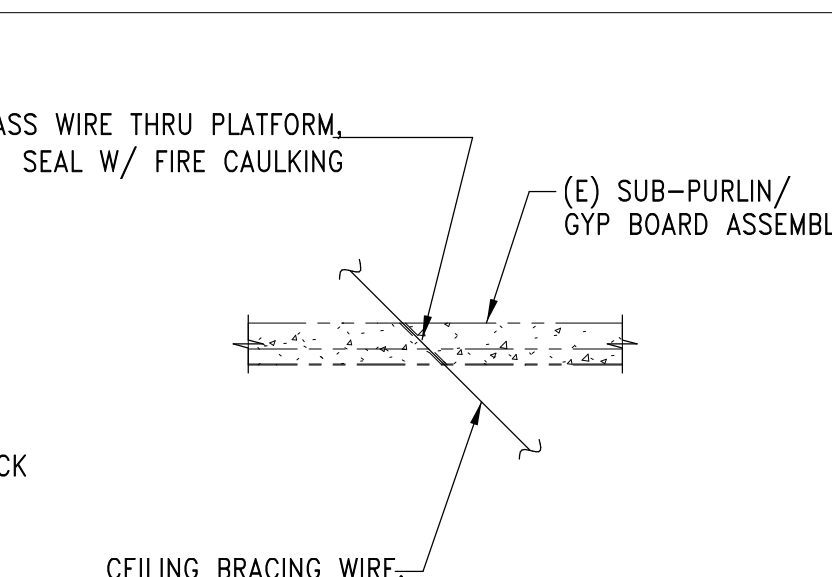
E7 COMP. STRUT CONN.

SE400 1" = 1'-0"



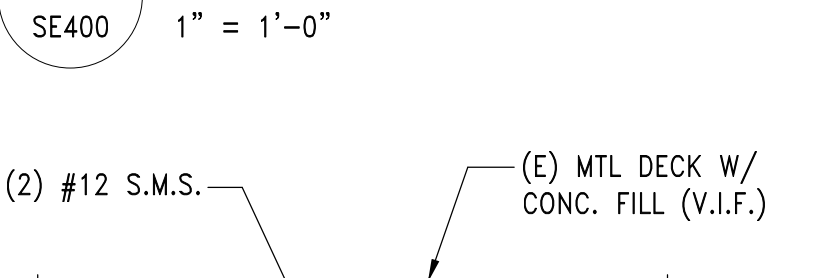
E8 INTERRUPTED INTERSTITIAL FLOOR OPENING DETAIL

SE400 N.T.S.



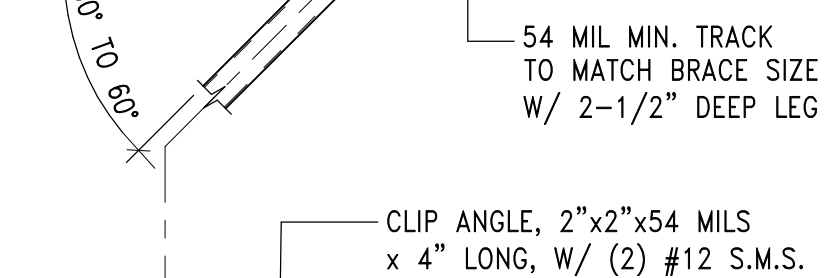
A6 TYP. MTL STUD TO (E) DECK CONN.

SE400 1" = 1'-0"



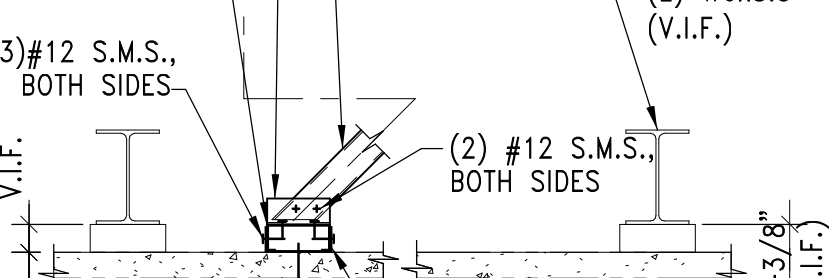
A7 SUSP. CEILING WIRING CONN.

SE400 1" = 1'-0"



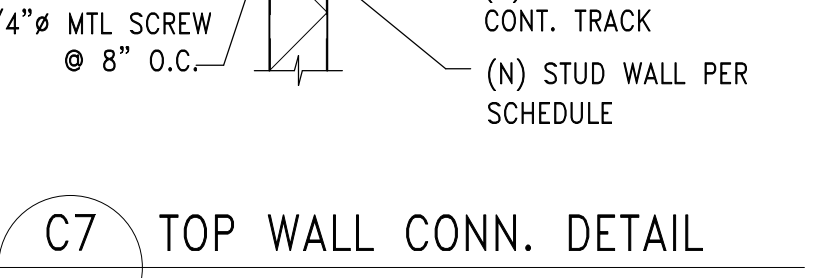
B8 TYPICAL PENETRATION DETAIL

SE400 1" = 1'-0"



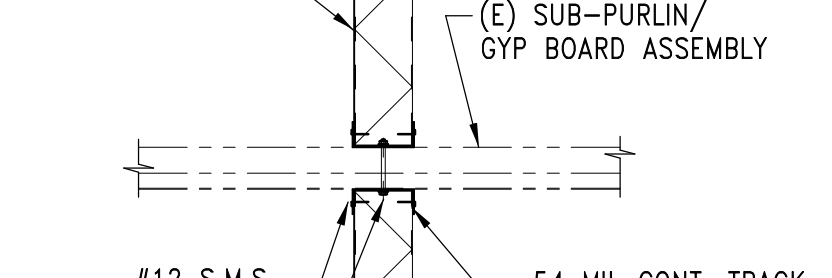
**C6 TYP. KICKER CONN. @
SUSPENDED STUD WALL**

SE400 1" = 1'-0"



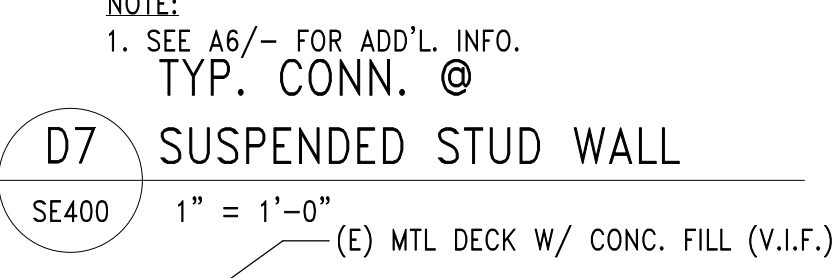
D5 TP. BACKING CONNECTION

SE400 1" = 1'-0"



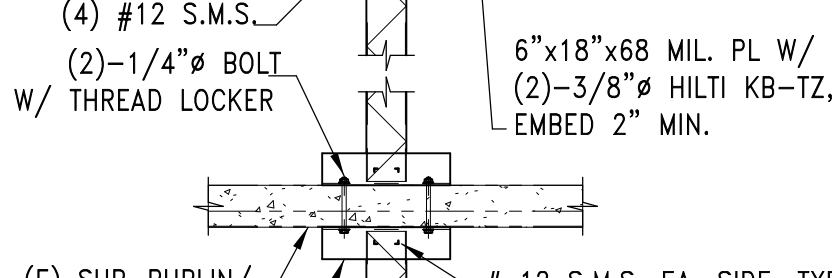
D6 TYP. CEILING BRACING WIRE DTL

SE400 1" = 1'-0"



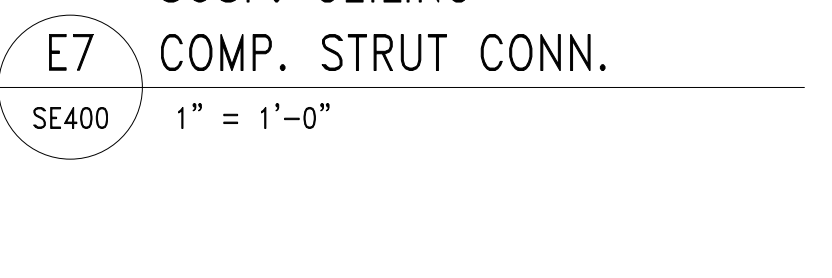
D7 SUSPENDED STUD WALL

SE400 1" = 1'-0"



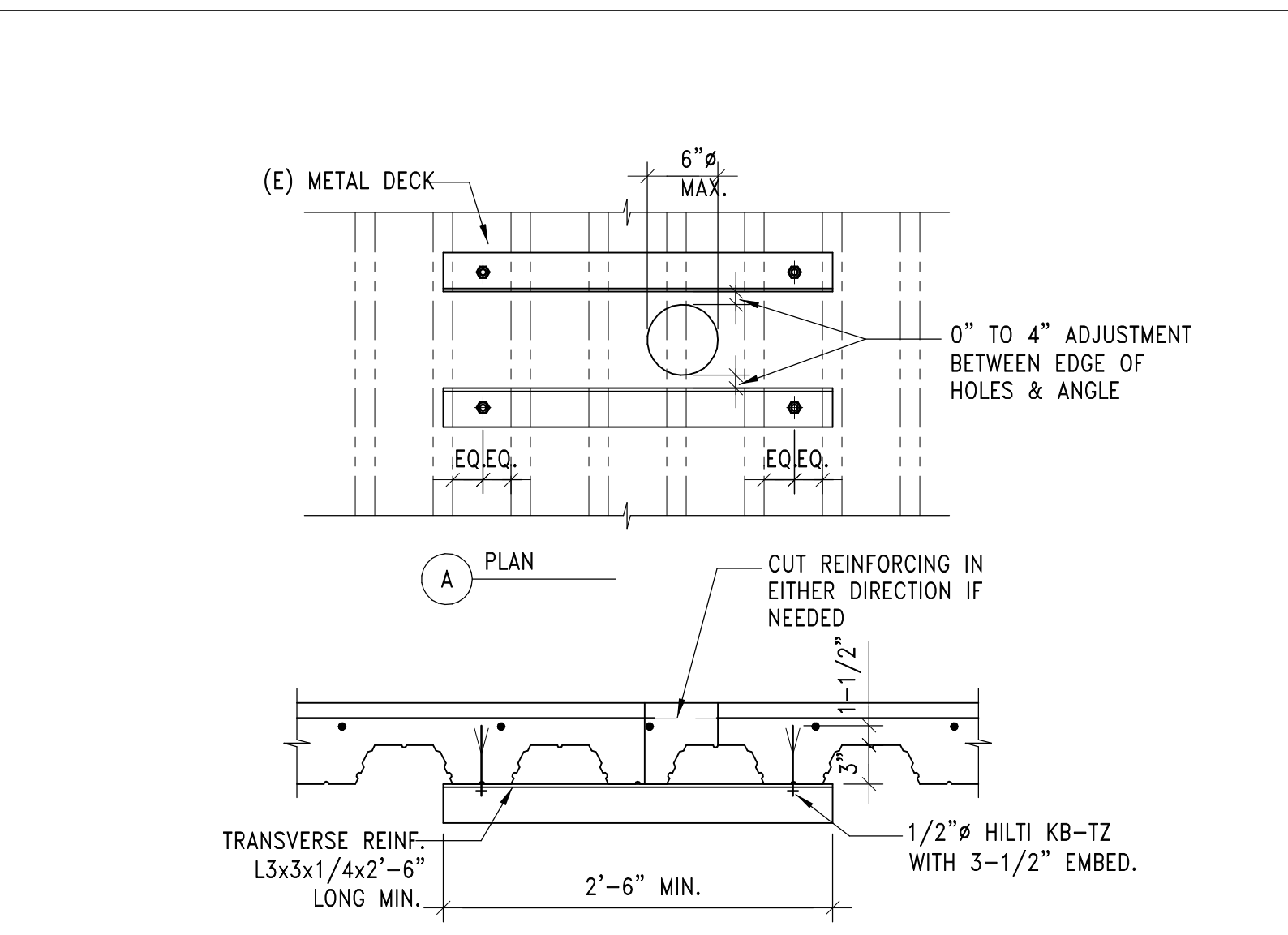
E7 COMP. STRUT CONN.

SE400 1" = 1'-0"



E8 INTERRUPTED INTERSTITIAL FLOOR OPENING DETAIL

SE400 N.T.S.



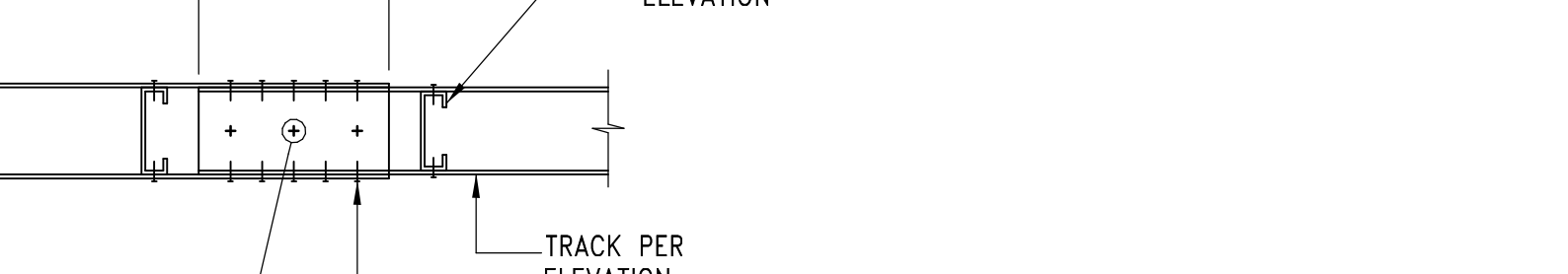
A6 TYP. MTL STUD TO (E) DECK CONN.

SE400 1" = 1'-0"



A7 SUSP. CEILING WIRING CONN.

SE400 1" = 1'-0"



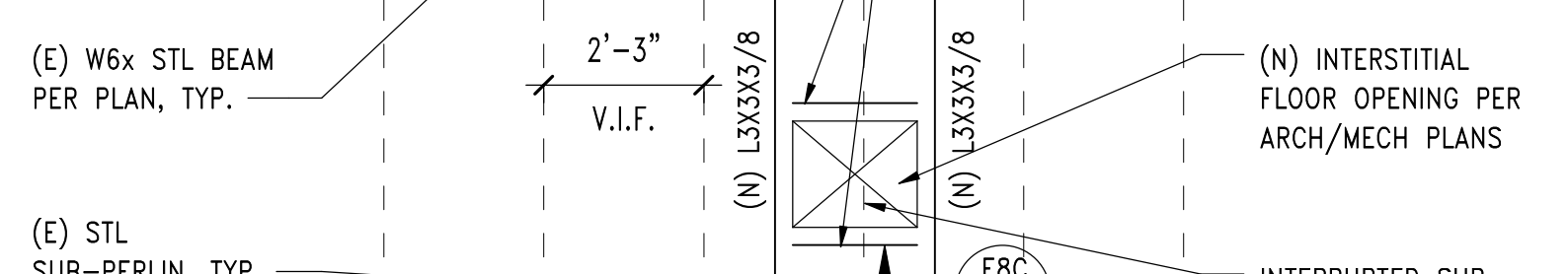
B8 TYPICAL PENETRATION DETAIL

SE400 1" = 1'-0"



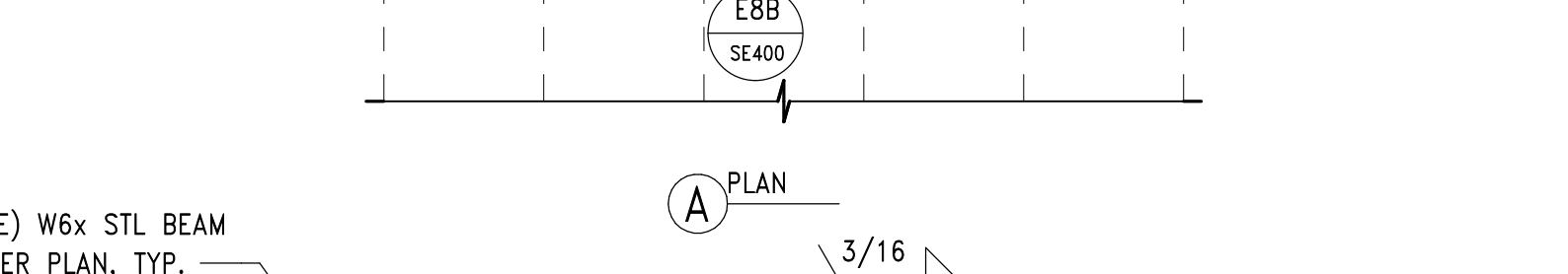
**C6 TYP. KICKER CONN. @
SUSPENDED STUD WALL**

SE400 1" = 1'-0"



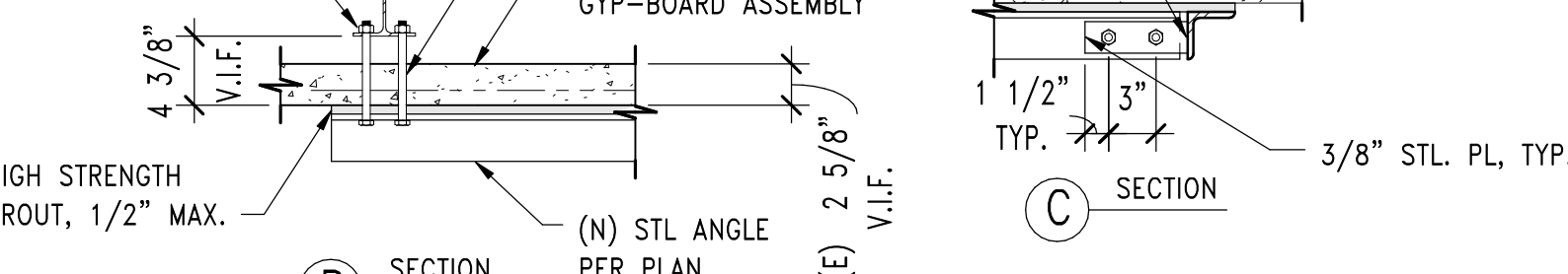
D5 TP. BACKING CONNECTION

SE400 1" = 1'-0"



D6 TYP. CEILING BRACING WIRE DTL

SE400 1" = 1'-0"



D7 SUSPENDED STUD WALL

SE400 1" = 1'-0"



E7 COMP. STRUT CONN.

SE400 1" = 1'-0"



E8 INTERRUPTED INTERSTITIAL FLOOR OPENING DETAIL

SE400 N.T.S.

A

B

C

D

E

F



PLAN NOTES

- REPAIR AND PATCH ALL SURFACES WHERE WALLS HAVE BEEN REMOVED OR SCARRED FROM DEMOLITION
- WHERE NEW WORK ADJOINS EXISTING, SUCH NEW WORK SHALL BE PROPERLY INTEGRATED TO ENSURE UNIFORM APPEARANCE. NEW SURFACES SHALL ALIGN WITH EXISTING ADJACENT SURFACE.
- EXISTING SLAB SHALL BE REPAIRED TO RECEIVE NEW FLOOR FINISHES WHERE INDICATED. PATCH ALL HOLES IN THE SLAB TO MATCH EXISTING CONSTRUCTION.
- UNLESS OTHERWISE NOTED, ALL FF & E IS PROVIDED BY THE VA. FF & E IS SHOWN ON THE PLANS FOR COORDINATION AND DESIGN PURPOSES.
- ALL AREAS OUTSIDE OF THE PROJECT SCOPE MUST REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.
- THE VA REQUIRES NOTIFICATION OF TEN (10) BUSINESS DAYS PRIOR TO ANY INTERRUPTIONS TO (E) UTILITIES
- CODE COMPLIANT EXITING MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. CONSTRUCT ALL TEMPORARY PARTITIONS ACCORDING TO PHASING SCHEDULE. REFER TO THE DEMOLITION PLANS FOR THE PHASE DESIGNATION OF TEMPORARY PARTITIONS.
- CONTRACTOR TO ENGAGE A CERTIFIED RADIOLOGICAL PHYSICIST FOR RADIATION SHIELDING DESIGN EVALUATION REPORT

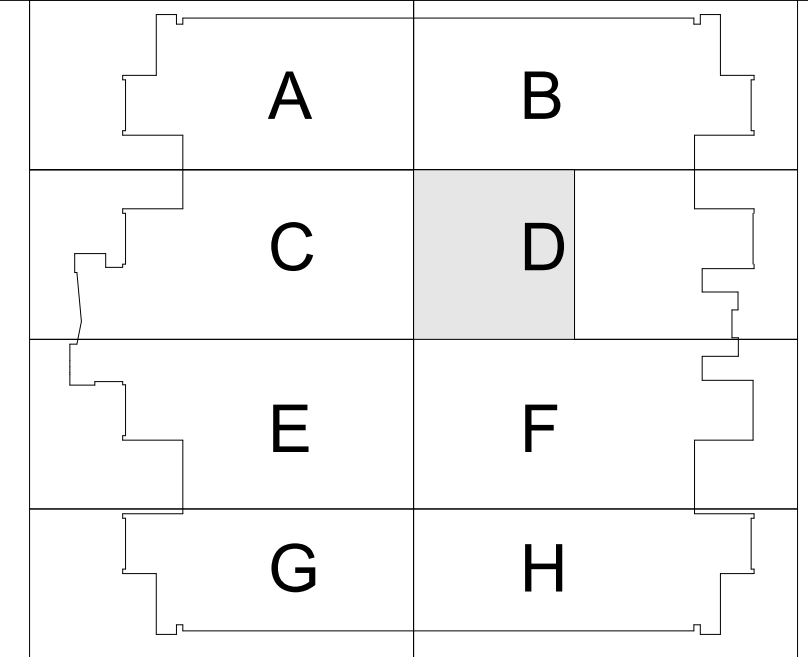
FLOOR PLAN KEYNOTES

- | | |
|-----|---|
| C01 | HANDRAIL/GUARDRAIL, SEE DETAIL D1/AE10 |
| C02 | CRASH RAIL, SEE DETAIL F2/AE10 |
| C03 | CEILING MOUNTED TOILET PARTITION, SEE DETAIL D8/AE10 |
| C04 | ACCESSIBLE LOCKER, SEE DETAIL C5/G1005 |
| C05 | MODULAR OVERHEAD CABINET WITH VERTICAL FILLER, PROVIDE BACKING PER DETAIL A5/SE400 AND D5/SE400 |
| C06 | MODULAR BASE CABINET PROVIDE BACKING PER DETAIL A5/SE400 AND D5/SE400 |
| C07 | CONSTRUCTION AND INSTALLATION OF NEW MECHANICAL DUCTS, PIPES AND OTHER ASSOCIATED ITEMS WITHIN SHAFT SH03-11 IS NOT INCLUDED IN THE SCOPE OF WORK |
| C12 | SEMI RECESSED FIRE EXTINGUISHER CABINET, SEE DETAIL F3/AE504 AND F5/AE504 |
| C13 | RELOCATED DRINKING FOUNTAIN |
| C14 | RELOCATED WALL MOUNTED EYEWASH |
| C15 | RECESSED MEDICAL GAS ALARM PANEL, SEE F3/AE504, F5/AE504 AND PLUMBING DRAWINGS |
| C16 | RECESSED MEDICAL GAS ZONE VALVE, SEE F3/AE504, F5/AE504 AND PLUMBING DRAWINGS |
| C17 | RECESSED ISOLATED POWER PANEL, SEE F3/AE504, F5/AE504 AND ELECTRICAL DRAWINGS |
| C18 | RECESSED ISOLATED POWER PANEL, SEE F3/AE504, F5/AE504 AND ELECTRICAL DRAWINGS |
| C19 | STAINLESS STEEL RECESSED PROTECTIVE BOX FOR CARD READER, SEE DETAIL F1/AE504 |
| C20 | WAVE ACTIVATED DOOR OPERATOR |
| C22 | WALL RECESSED SURGICAL LIGHT PANELS, SEE ELECTRICAL DRAWINGS |

LEGEND: FLOOR PLAN

- | | |
|--|---|
| | EXISTING CONSTRUCTION TO REMAIN |
| | NEW CONSTRUCTION |
| | EXISTING 1-HR RATED WALL TO REMAIN |
| | NEW 1-HR RATED WALL |
| | EXISTING 2-HR RATED WALL TO REMAIN |
| | NEW 2-HR RATED WALL |
| | (N) EQUIPMENT OR RELOCATED (E) EQUIPMENT - SEE EQUIPMENT LIST WITH SPECIFICATIONS |
| | AREA OF BUILDING NOT IN SCOPE OF WORK |
| | EXTENT OF LEAD SHIELDING, SEE PLAN NOTES #8 |

KEY PLAN



CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

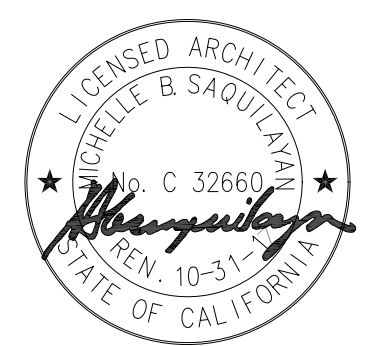
F1 FLOOR PLAN - LEVEL 3 - AREA D
SCALE: 1/4" = 1'-0"

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/19/2016
3	CONSTRUCTION DOCUMENTS (CD)	08/07/2016
4		
5		
6		
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8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

CONSULTANTS:

(SEE PROJECT TEAM DIRECTORY ON G1000 COVER SHEET)

Seals and Signatures



ARCHITECTS/ENGINEERS:

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550 South Hope Street, 27th Floor
Los Angeles, California 90071, USA
213-629-0100 F213-629-0070

PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS
EST. 1915

Drawing Title
FLOOR PLAN - LEVEL 3 - AREA D

Approved: Project Director

Project Title
**CONSTRUCT OPERATING
ROOM #8**

Location
11201 BENTON STREET
LOMA LINDA, CA 92357
Date
03/30/2016
Checked
MS
Drawn
TV

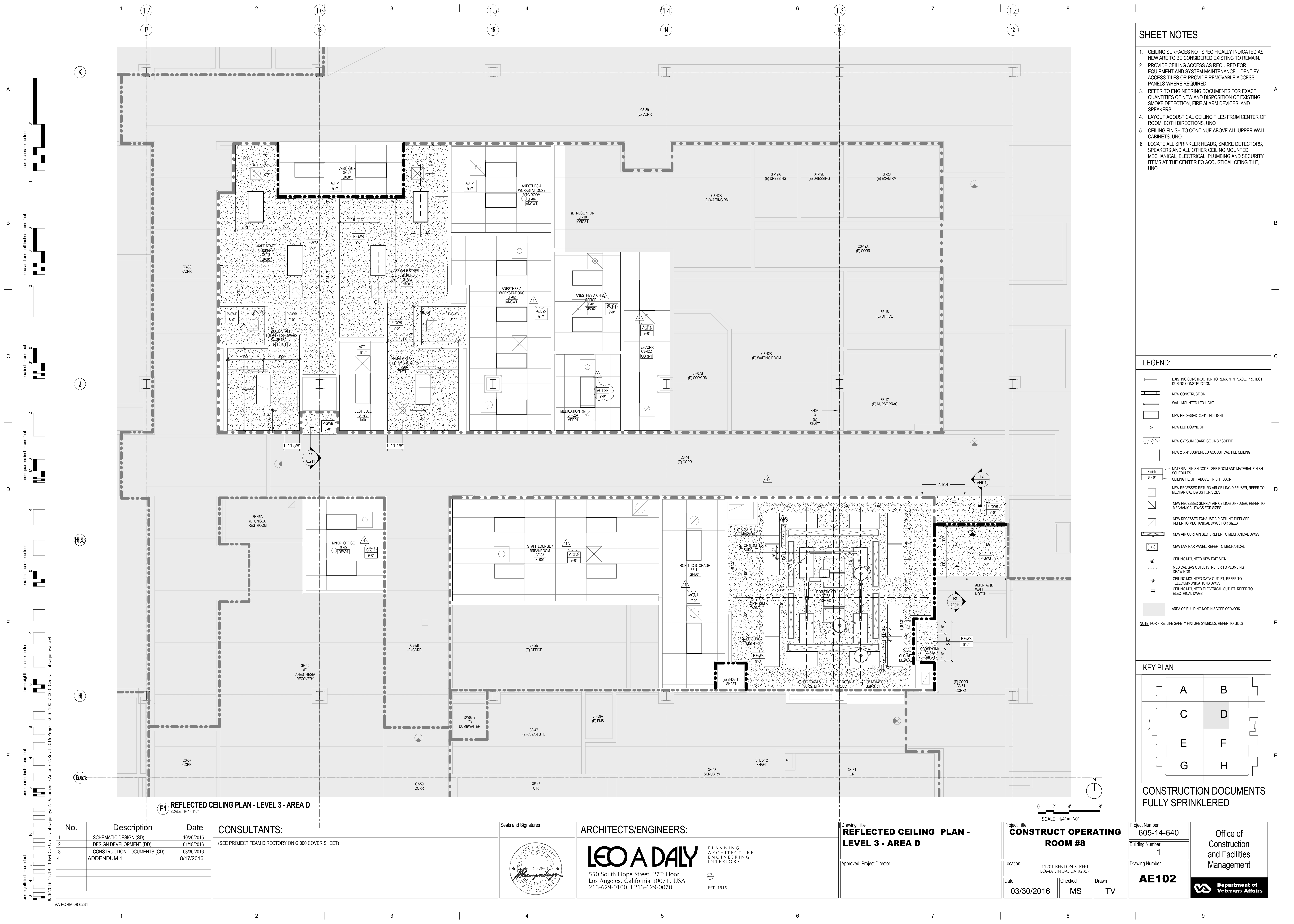
Project Number
605-14-640

Building Number
1

Drawing Number
AE101

Office of
Construction and
Facilities
Management





SHEET NOTES

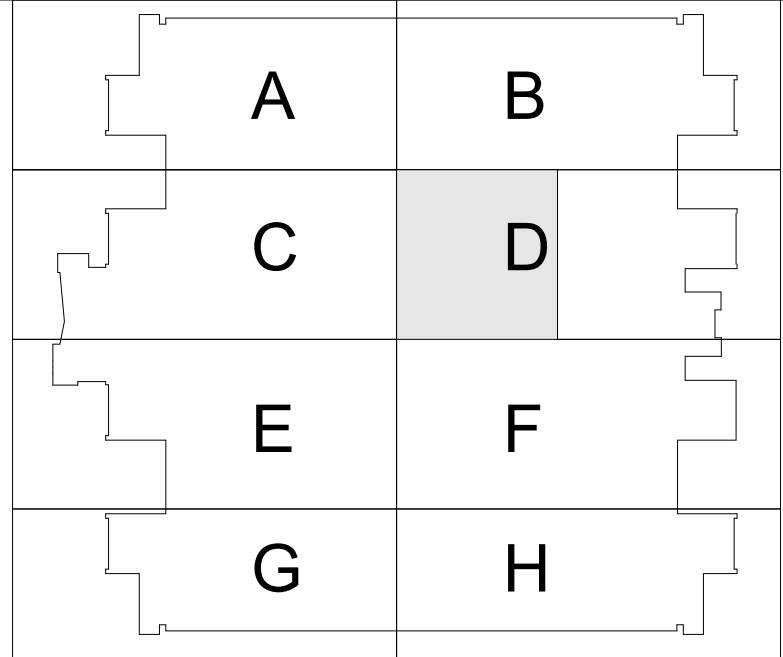
1. CEILING SURFACES NOT SPECIFICALLY INDICATED AS NEW ARE TO BE CONSIDERED EXISTING TO REMAIN.
2. PROVIDE CEILING ACCESS AS REQUIRED FOR EQUIPMENT AND SYSTEM MAINTENANCE. IDENTIFY ACCESS TILES OR PROVIDE REMOVABLE ACCESS PANELS WHERE REQUIRED.
3. REFER TO ENGINEERING DOCUMENTS FOR EXACT QUANTITIES OF NEW AND DISPOSITION OF EXISTING SMOKE DETECTION, FIRE ALARM DEVICES, AND SPEAKERS.
4. LAYOUT ACOUSTICAL CEILING TILES FROM CENTER OF ROOM, BOTH DIRECTIONS, UNO
5. CEILING FINISH TO CONTINUE ABOVE ALL UPPER WALL CABINETS, UNO
8. LOCATE ALL SPRINKLER HEADS, SMOKE DETECTORS, MECHANICAL, ELECTRICAL, PLUMBING AND SECURITY ITEMS AT THE CENTER FO ACOUSTICAL CEING TILE, UNO

LEGEND:

- EXISTING CONSTRUCTION TO REMAIN IN PLACE, PROTECT DURING CONSTRUCTION.
- NEW CONSTRUCTION.
- WALL MOUNTED LED LIGHT
- NEW RECESSED 2'x4" LED LIGHT
- NEW LED DOWNLIGHT
- NEW GYPSUM BOARD CEILING / SOFFIT
- NEW 2' X 4' SUSPENDED ACOUSTICAL TILE CEILING
- MATERIAL FINISH CODE - SEE ROOM AND MATERIAL FINISH SCHEDULES
- CEILING HEIGHT ABOVE FINISH FLOOR
- NEW RECESSED RETURN AIR CEILING DIFFUSER, REFER TO MECHANICAL DWGS FOR SIZES
- NEW RECESSED SUPPLY AIR CEILING DIFFUSER, REFER TO MECHANICAL DWGS FOR SIZES
- NEW RECESSED EXHAUST AIR CEILING DIFFUSER, REFER TO MECHANICAL DWGS FOR SIZES
- NEW AIR CURTAIN SLOT, REFER TO MECHANICAL DWGS
- NEW LAMINAR PANEL, REFER TO MECHANICAL
- CEILING MOUNTED NEW EXT SIGN
- MEDICAL GAS OUTLETS, REFER TO PLUMBING DRAWINGS
- CEILING MOUNTED DATA OUTLET, REFER TO TELECOMMUNICATIONS DWGS
- CEILING MOUNTED ELECTRICAL OUTLET, REFER TO ELECTRICAL DWGS
- AREA OF BUILDING NOT IN SCOPE OF WORK

NOTE: FOR FIRE, LIFE SAFETY FIXTURE SYMBOLS, REFER TO G1002

KEY PLAN



CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/18/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	8/17/2016

CONSULTANTS:

(SEE PROJECT TEAM DIRECTORY ON G1000 COVER SHEET)

Seals and Signatures



ARCHITECTS/ENGINEERS:

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213-629-0100 F213-629-0070

PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS

EST. 1915

Drawing Title
**REFLECTED CEILING PLAN -
LEVEL 3 - AREA D**

Approved: Project Director

Project Title
**CONSTRUCT OPERATING
ROOM #8**

Location
11201 BENTON STREET
LOMA LINDA, CA 92357

Date
03/30/2016

Checked
MS

Drawn
TV

Project Number
605-14-640

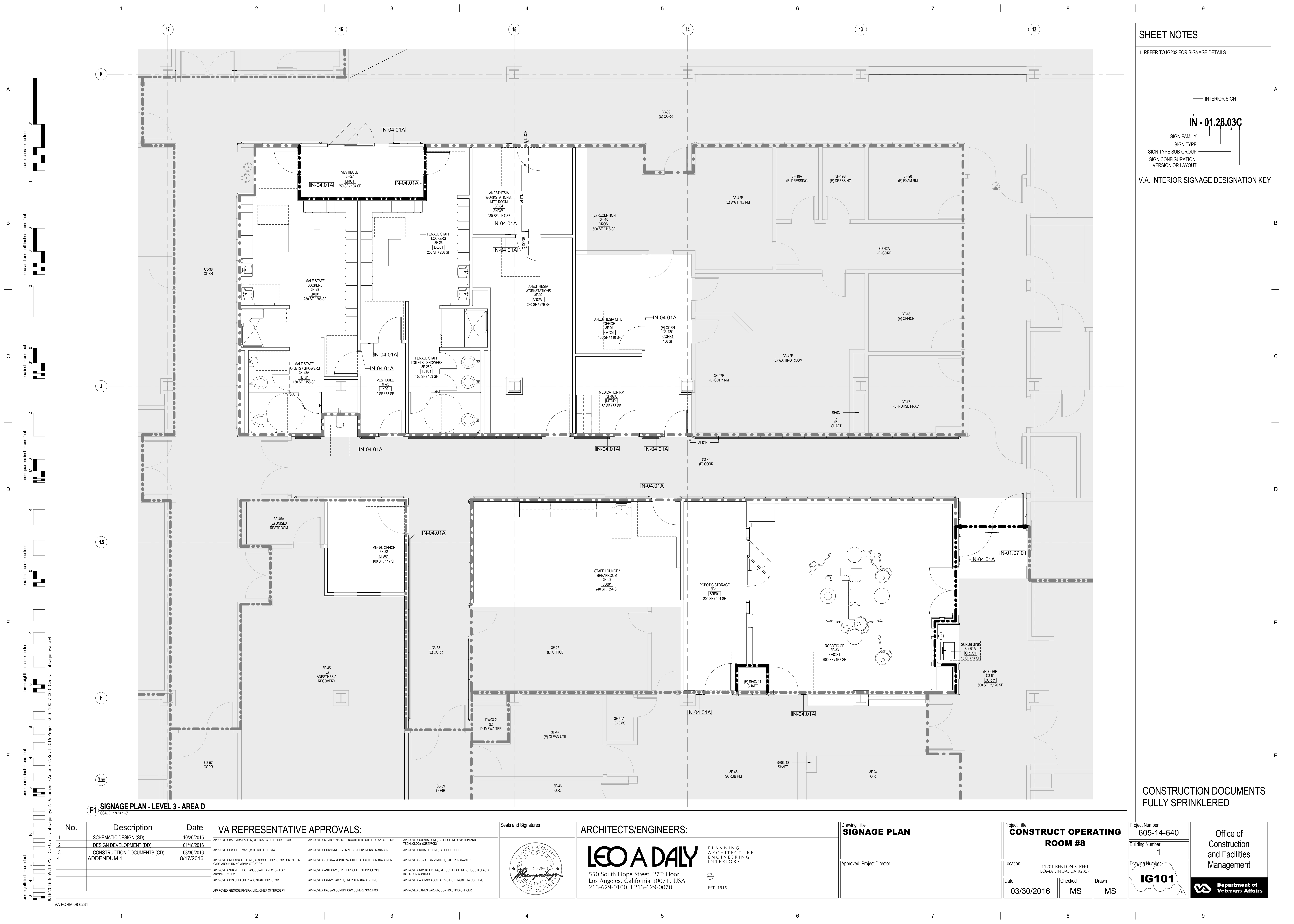
Building Number
1

Drawing Number

AE102

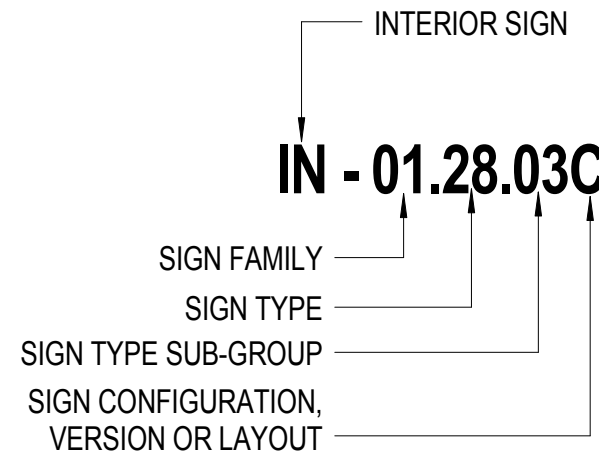
Office of
Construction and
Facilities
Management





SHEET NOTES

1. REFER TO IG202 FOR SIGNAGE DETAILS



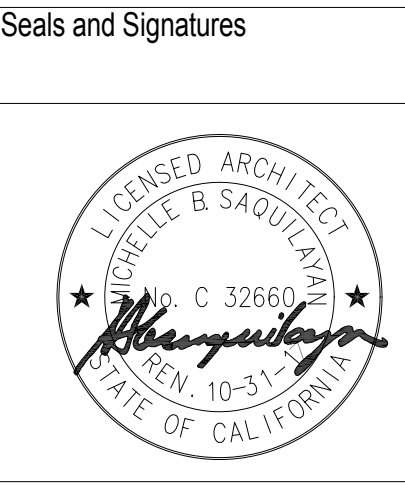
V.A. INTERIOR SIGNAGE DESIGNATION KEY

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

F1 SIGNAGE PLAN - LEVEL 3 - AREA D
SCALE: 1/4" = 1'-0"

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/18/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	8/17/2016

VA REPRESENTATIVE APPROVALS:		
APPROVED: BARBARA FALLEN, MEDICAL CENTER DIRECTOR	APPROVED: KEVIN A. NASSER-NOOR, M.D., CHIEF OF ANESTHESIA	APPROVED: CURTIS SOND, CHIEF OF INFORMATION AND TECHNOLOGY (D&IT/FOID)
APPROVED: DWIGHT EVANS, M.D., CHIEF OF STAFF	APPROVED: GIOVANNI RUZ, R.N., SURGERY NURSE MANAGER	APPROVED: NORVELL KING, CHIEF OF POLICE
APPROVED: MELISSA G. LLOYD, ASSOCIATE DIRECTOR FOR PATIENT CARE AND NURSING ADMINISTRATION	APPROVED: JULIANA MONTROYA, CHIEF OF FACILITY MANAGEMENT	APPROVED: JONATHAN VINSEY, SAFETY MANAGER
APPROVED: SHANE ELLIOT, ASSOCIATE DIRECTOR FOR ADMINISTRATION	APPROVED: ANTHONY STRELETZ, CHIEF OF PROJECTS	APPROVED: MICHAEL B. ING, M.D., CHIEF OF INFECTIOUS DISEASE/ INFECTION CONTROL
APPROVED: PRACHI ASHER, ASSISTANT DIRECTOR	APPROVED: LARRY BARRET, ENERGY MANAGER, FMS	APPROVED: ALONSO ACCOSTA, PROJECT ENGINEER/ COR, FMS
APPROVED: GEORGE RIVERA, M.D., CHIEF OF SURGERY	APPROVED: HASSAN CORBIN, OAM SUPERVISOR, FMS	APPROVED: JAMES BARBER, CONTRACTING OFFICER



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ENGINEERING
INTERIORS
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Drawing Title
SIGNAGE PLAN

Approved: Project Director

Project Title
**CONSTRUCT OPERATING
ROOM #8**

Location
11201 BENTON STREET
LOMA LINDA, CA 92357
Date
03/30/2016

Checked
MS

Drawn
MS

Project Number
605-14-640

Building Number
1

Drawing Number
IG101

Office of
Construction
and Facilities
Management



A

B

C

D

E

F

A

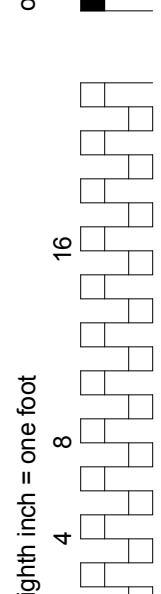
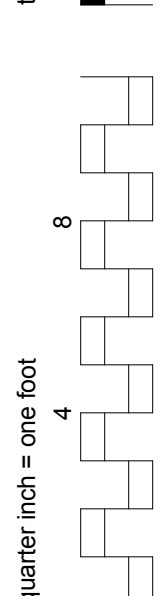
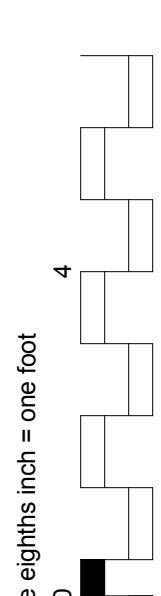
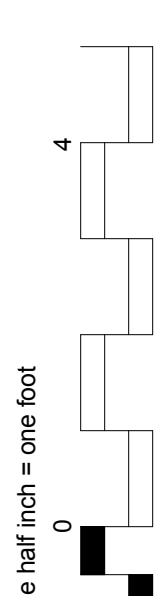
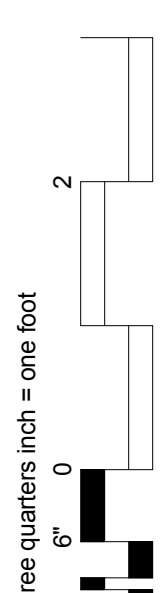
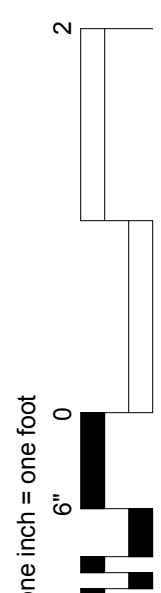
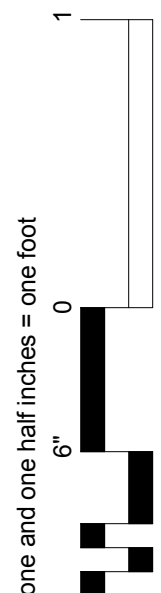
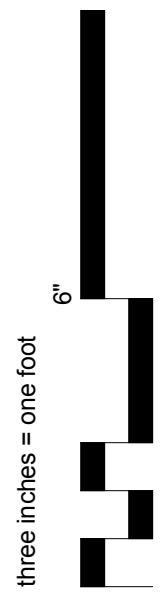
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No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/18/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	8/17/2016

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PLANNING
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ENGINEERING
INTERIORS

EST. 1915

Drawing Title
INTERIOR SIGNAGE DETAILS
Approved: Project Director

Project Title		
CONSTRUCT OPERATING ROOM #8		
Location		
11201 BENTON STREET LOMA LINDA, CA 92357		
Date	Checked	Drawn
03/30/2016	MS	MS

Project Number 605-14-640
Building Number 1
Drawing Number IG201

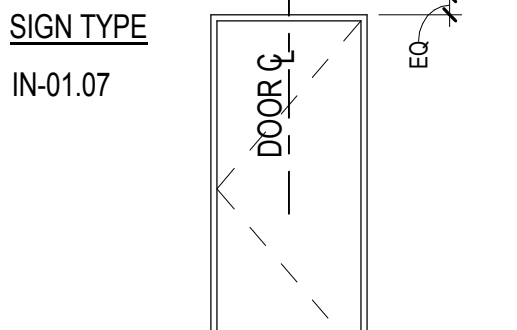
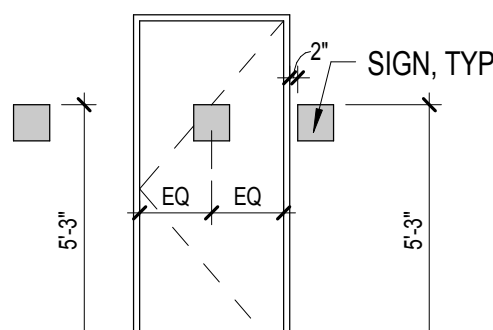
Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

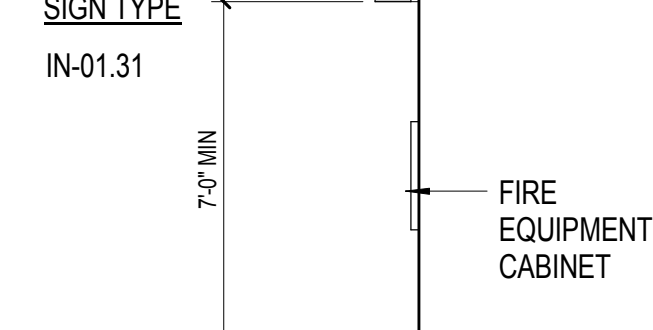
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IN-01.01 IN-01.16 IN-01.23
IN-01.03 IN-01.17 IN-01.24
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IN-01.06 IN-01.19 IN-01.29
IN-01.10 IN-01.20
IN-01.12 IN-01.21
IN-01.13 IN-01.22

① PLACEMENT DETAIL

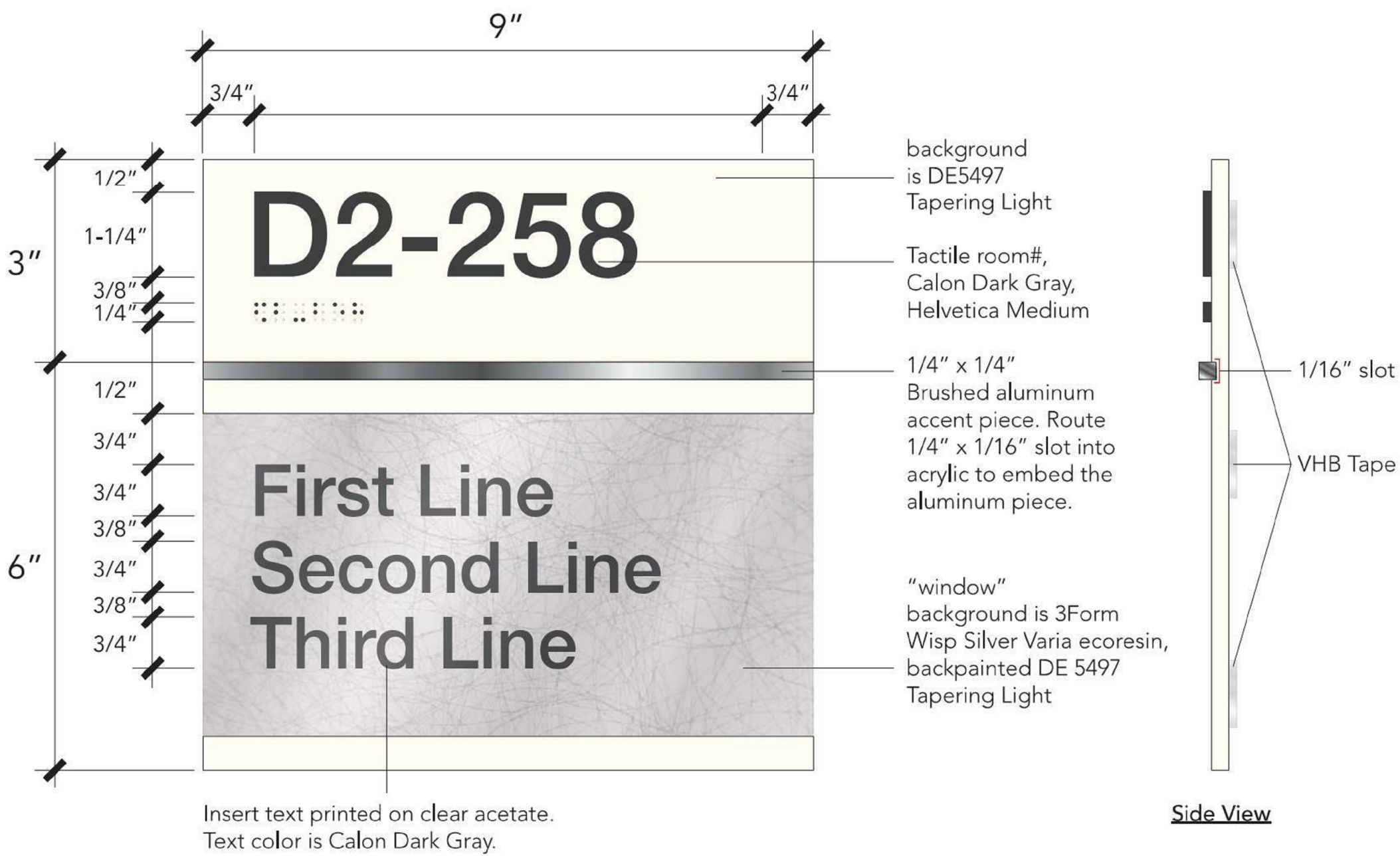


④ PLACEMENT DETAIL



⑤ PLACEMENT DETAIL

SEE DETAIL A1-2 FOR MOUNTING	SEE DETAIL A1-5 FOR MOUNTING	
IN-04.01A PRIMARY ROOM IDENTIFICATION	IN-01.31 FIRE PROCEDURE SIGN	IN-01.07.01



REFERENCE NOTES

- 1 (4)24x36 LAMINAR FLOW DIFFUSER WITH HEPA FILTER. PRICE MODEL LFDC, 245 CFM EACH.
- 2 (4)6'-0" AIR CURTAIN . PRICE MODEL HORD, 330 CFM EACH.
- 3 (4)6'-0" AIR CURTAIN . PRICE MODEL HORD, 245 CFM EACH.
- 4 30x18 RETURN AIR GRILLE 6" ABOVE FINISHED FLOOR.

A	B
C	D
E	F
G	H

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

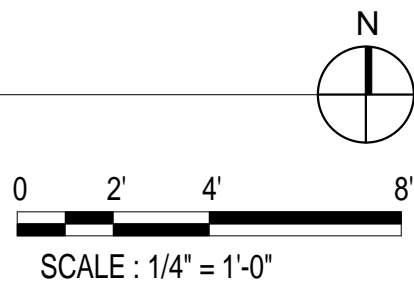
Project Number
605- 14-640

Building Number

Drawing Number

MH101

Office of
Construction
and Facilities
Management



F1 MECHANICAL FLOOR PLAN - LEVEL 3 - AREA D
SCALE: 1/4" = 1'-0"

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/18/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	08/17/2016

CONSULTANTS:

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dHA + CALPEC
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SUITE NO. 100
PASADENA, CA. 91105
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Seals and Signatures

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PLANNING
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EST. 1915

Drawing Title
MECHANICAL FLOOR PLAN - LEVEL
3 - AREA D

Approved: Project Director

Project Title
CONSTRUCT OPERATING
ROOM #8

Location
201 BENTON STREET, LOMA LINDA, CA 92357

Date
3/30/2016

Checked
KG

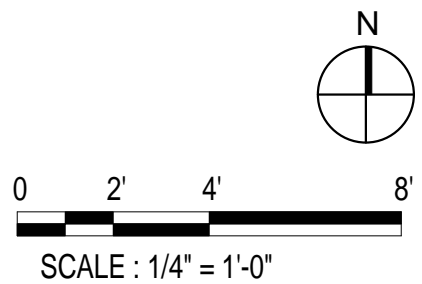
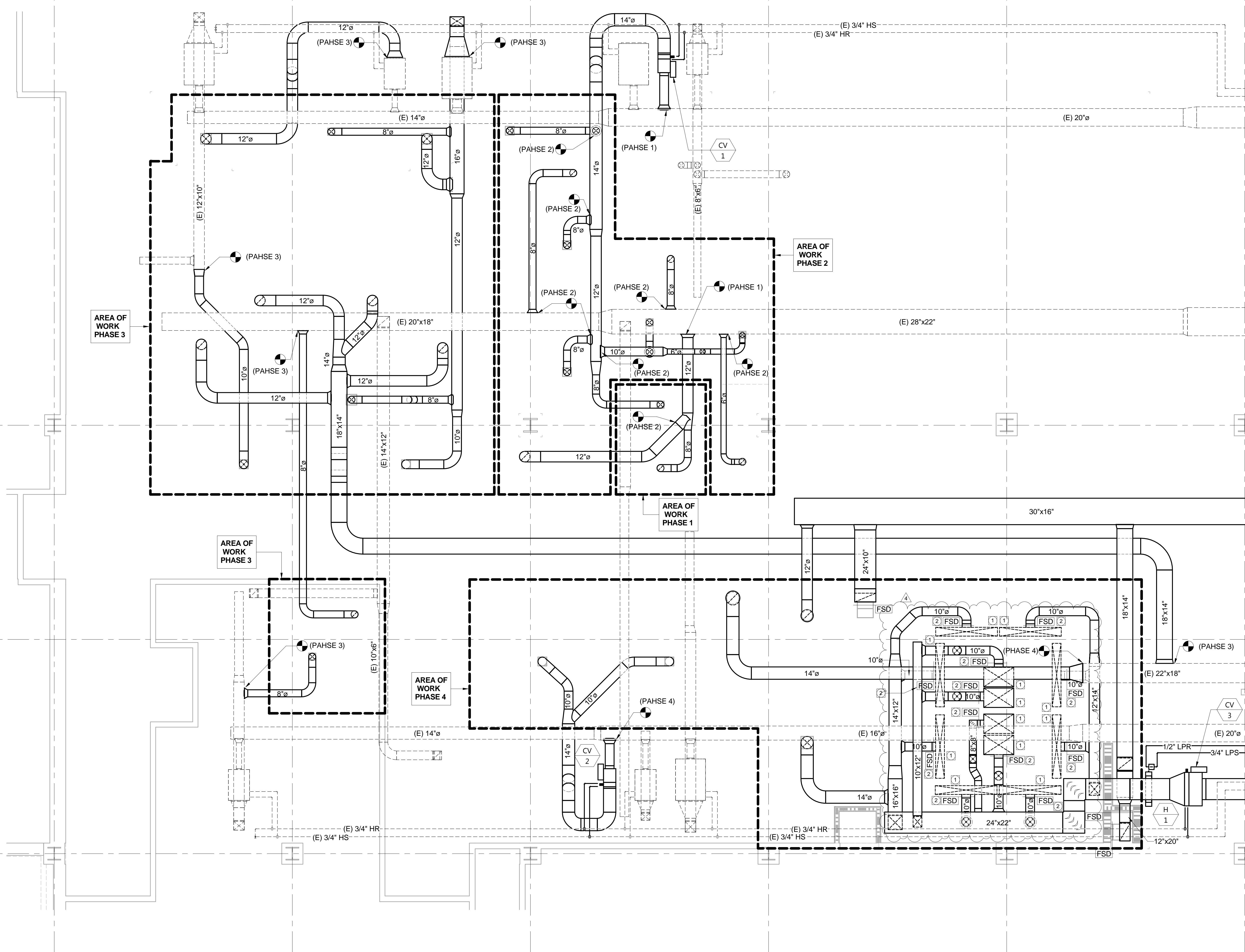
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dHA+CALPEC

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REFERENCE NOTES

- 1 3M FIRE WRAP AROUND DIFFUSER PLENUM
2 FSD @ DUCT PENETRATION OF FIRE WRAP. CONNECT FSD TO AREA SMOKE DETECTOR SYSTEM. SEE FIRE ALARM DWG'S.

EXACT SIZE, ELEVATION, & LOCATION OF EXISTING SHALL BE FIELD VERIFIED.



CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
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EST. 1915

Drawing Title
MECHANICAL INTERSTITIAL PLAN
- LEVEL 3 - AREA D

Approved: Project Director

Project Title
CONSTRUCT OPERATING
ROOM #8

Location
201 BENTON STREET, LOMA LINDA, CA 92357

Date
3/30/2016

Checked
KG

Drawn
dHA+CALPEC

Project Number
605- 14-640

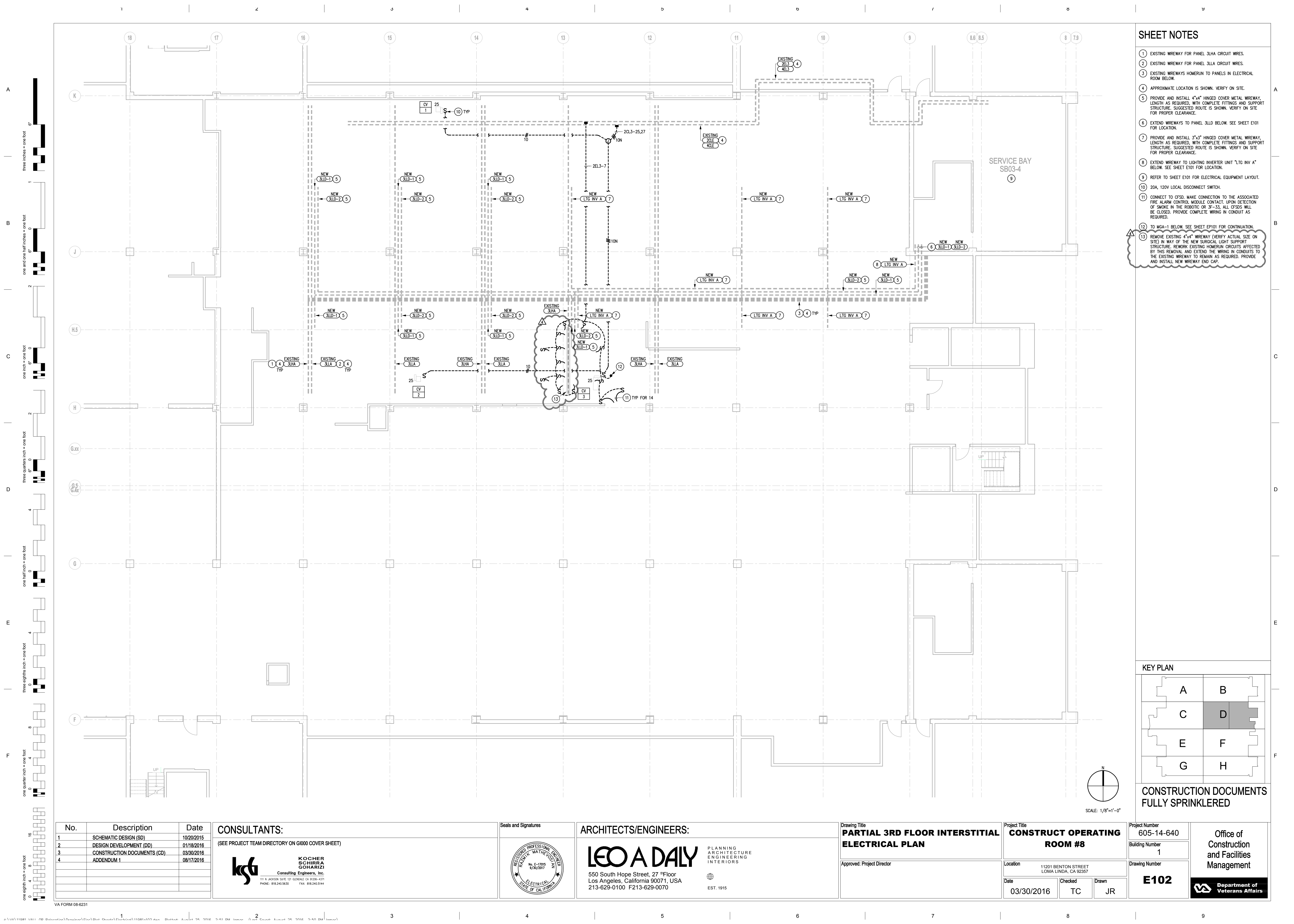
Building Number

Drawing Number

MH102A

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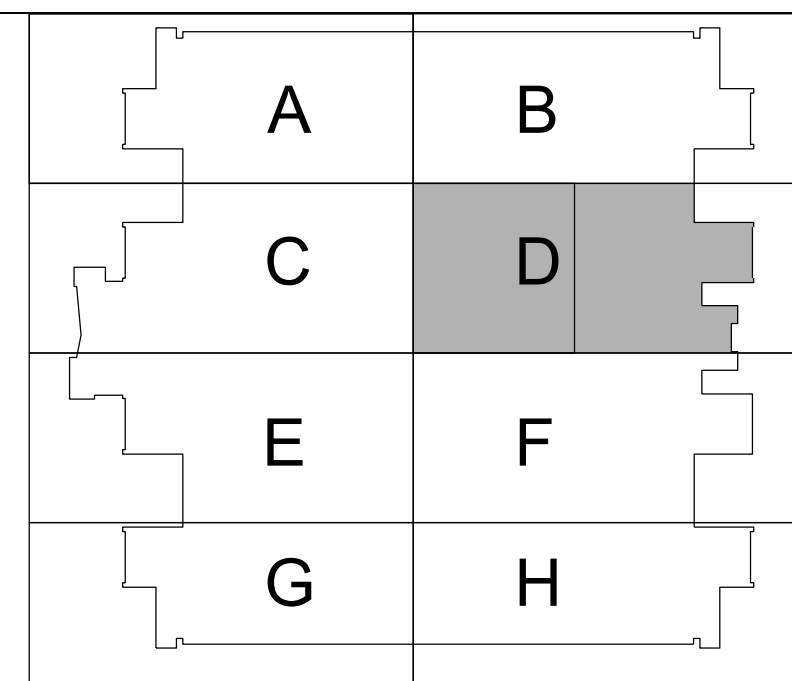




SHEET NOTES

- EXISTING WIREWAY FOR PANEL 3LHA CIRCUIT WIRES.
- EXISTING WIREWAY FOR PANEL 3LLA CIRCUIT WIRES.
- EXISTING WIREWAYS HOMERUN TO PANELS IN ELECTRICAL ROOM BELOW.
- APPROXIMATE LOCATION IS SHOWN. VERIFY ON SITE.
- PROVIDE AND INSTALL 4"x4" HINGED COVER METAL WIREWAY, LENGTH AS REQUIRED, WITH COMPLETE FITTINGS AND SUPPORT STRUCTURE. SUGGESTED ROUTE IS SHOWN. VERIFY ON SITE FOR PROPER CLEARANCE.
- EXTEND WIREWAYS TO PANEL 3LLD BELOW. SEE SHEET E101 FOR LOCATION.
- PROVIDE AND INSTALL 3"x3" HINGED COVER METAL WIREWAY, LENGTH AS REQUIRED, WITH COMPLETE FITTINGS AND SUPPORT STRUCTURE. SUGGESTED ROUTE IS SHOWN. VERIFY ON SITE FOR PROPER CLEARANCE.
- EXTEND WIREWAY TO LIGHTING INVERTER UNIT "LTG INV A" BELOW. SEE SHEET E101 FOR LOCATION.
- REFER TO SHEET E101 FOR ELECTRICAL EQUIPMENT LAYOUT.
- 20A, 120V LOCAL DISCONNECT SWITCH.
- CONNECT TO CFSD. MAKE CONNECTION TO THE ASSOCIATED FIRE ALARM CONTROL MODULE CONTACT. UPON DETECTION OF SMOKE IN THE ROBOTIC OR 3F-33, ALL CFSDS WILL BE CLOSED. PROVIDE COMPLETE WIRING IN CONDUIT AS REQUIRED.
- TO MGA-1 BELOW. SEE SHEET EP101 FOR CONTINUATION.
- REMOVE EXISTING 4"x4" WIREWAY (VERIFY ACTUAL SIZE ON SITE) IN WAY OF THE NEW SURGICAL LIGHT SUPPORT STRUCTURE. REWORK EXISTING HOMERUN CIRCUITS AFFECTED BY THIS REMOVAL AND EXTEND THE WIRING IN CONDUITS TO THE EXISTING WIREWAY TO REMAIN AS REQUIRED. PROVIDE AND INSTALL NEW WIREWAY END CAP.

KEY PLAN



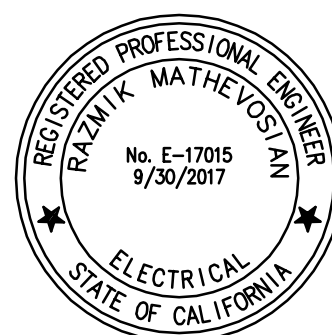
CONSTRUCTION DOCUMENTS
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No.	Description	Date
1	SCHEMATIC DESIGN (SD)	10/20/2015
2	DESIGN DEVELOPMENT (DD)	01/18/2016
3	CONSTRUCTION DOCUMENTS (CD)	03/30/2016
4	ADDENDUM 1	08/17/2016

CONSULTANTS:
(SEE PROJECT TEAM DIRECTORY ON G1000 COVER SHEET)



Seals and Signatures



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Drawing Title
**PARTIAL 3RD FLOOR INTERSTITIAL
ELECTRICAL PLAN**

Approved: Project Director

Project Title
**CONSTRUCT OPERATING
ROOM #8**

Location
11201 BENTON STREET
LOMA LINDA, CA 92357
Date
03/30/2016
Checked
TC
Drawn
JR

Project Number
605-14-640

Building Number
1

Drawing Number
E102

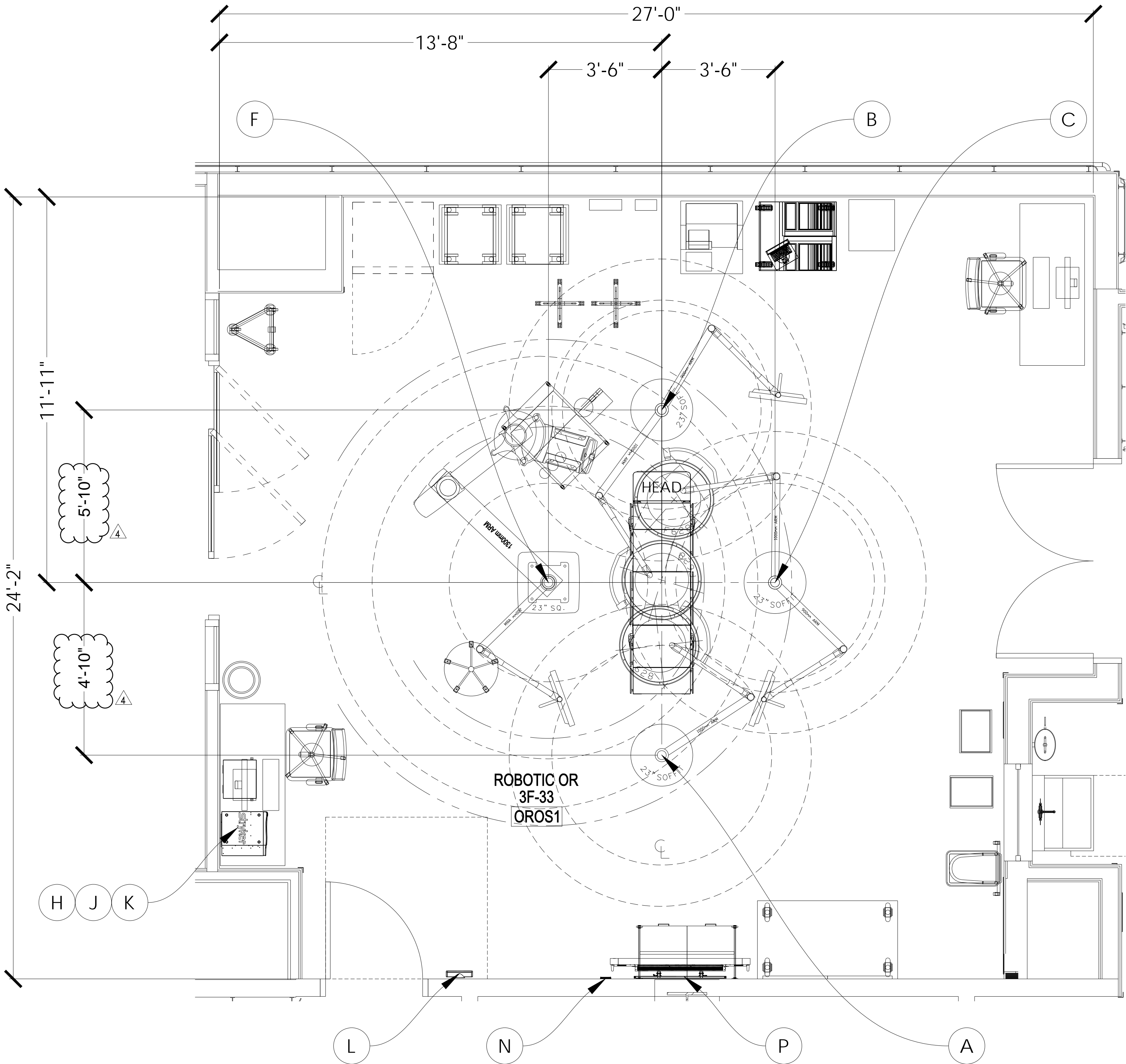
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and Facilities
Management



NOTES: (UNLESS OTHERWISE SPECIFIED)

EQUIPMENT SCHEDULE		
KEY ITEM	NAME	QTY
A	CHROMOPHARE F628 SURGICAL LIGHT (1000)	1
B	CHROMOPHARE F628 SURGICAL LIGHT (1000) / SINGLE FLAT PANEL (900)	1
C	CHROMOPHARE F628 SURGICAL LIGHT (1000) / SINGLE FLAT PANEL (900)	1
F	TELETOM TC TP-622-C EQUIPMENT BOOM (1300) / SINGLE FLAT PANEL (900)	1
H	CUSTOMER DOC STATION	1
J	SWITCHPOINT INFINITY 3	1
K	CHROMOPHARE SK ENCLOSURE	1
L	CHROMOPHARE WALL CONTROL PANEL	1
N	WALL PLATE VGA/S-VIDEO/BNC	1
P	55" LCD MONITOR	1

CONDUIT SCHEDULE		
CONDUIT RUN ITEM - ITEM	CONDUIT QTY	CONDUIT SIZE
A - K	2	1"
A - B	1	1"
B - J	1	1 1/4"
B - K	2	1"
B - C	1	1"
C - J	1	1 1/4"
C - K	2	1"
F - J	1	1 1/4"
F - J	2	2"
L - K	1	1"
K - *	1	1"
N - J	1	1"
P - J	1	1 1/4"
* - NEAREST ELECTRICAL PANEL		



FOR REFERENCE ONLY

SCALE: 1/2" = 1'

AUTOCAD DRAWING TEMPLATE | TEM100XX | REV: A

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EQUIPMENT LAYOUT

OPERATING ROOM #8

LOMA LINDA VA

LOMA LINDA, CA

REP: JONATHAN GRAY PM: AMY TANG
SHEET: R-OR8